Critique of Pure Reason

IMMANUEL KANT

1724–1804

Critique of Pure Reason

Kritik der reinen Vernunft

Translated from the German with AI (Claude) and edited



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INTRODUCTION

The *Critique of Pure Reason* (1781; second edition 1787) is one of the most important books in the history of philosophy. Kant set out to settle once and for all what reason can know on its own, before and apart from experience.

His answer was a revolution he compared to Copernicus's. Instead of assuming that our knowledge must conform to objects, suppose that objects must conform to our knowledge. Space and time, Kant argues, are the forms of our intuition, and concepts like substance and cause are rules the mind brings to experience. That is why they hold necessarily for everything we can experience — and also why we can never know things as they are in themselves. When reason tries to go beyond experience, to prove the soul immortal, the world finite or God's existence, it falls into illusions and contradictions.

This is the second edition, which Kant substantially revised. The three main passages of the first edition that he replaced — its preface, its version of the Transcendental Deduction, and its Paralogisms — follow as appendices.

Preface to the second edition

Kant explains his 'Copernican' revolution: objects must conform to our cognition, not the reverse.

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[2] *Baco de Verulamio*. [Bacon of Verulam.][1]

Instauratio magna. praefatio. [The Great Instauration. Preface.]

De nobis ipsis silemus: *De re autem, quae agitur, petimus*: *ut homines eam non opinionem, sed opus esse cogitent*; *ac pro certo habeant, non sectae nos alicuius, aut placiti, sed utilitatis et amplitudinis humanae fundamenta moliri. Deinde ut suis commodis aequi - in commune consulant - et ipsi in partem veniant. praeterea ut bene sperent, neque instaurationem nostram ut quiddam infinitum et ultra mortale fingant, et animo concipiant*; *cum revera sit infiniti erroris finis et terminus legitimus*. [Of ourselves we say nothing. But on behalf of the matter at hand we ask that people think of it not as an opinion but as a work, and hold it for certain that we are laying the foundations not of some sect or doctrine but of human welfare and greatness. Next, that, being fair to their own interests, they take counsel for the common good and themselves take part. Further, that they be of good hope, and not imagine or conceive of our Instauration as something infinite and beyond what mortals can do; for in truth it is the end and rightful limit of infinite error.]

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1 Francis Bacon, Baron Verulam (1561–1626), English philosopher and statesman. The motto comes from the preface to his *Great Instauration* (1620).

DEDICATION TO ZEDLITZ

Kant dedicates the second edition to the Prussian minister of education, Baron von Zedlitz.

[5] To promote the growth of the sciences in one's own part is to work in *Your Excellency's* own interest; for your interest is most intimately bound up with them, not merely through your exalted post as their protector, but through the far closer relation of a lover and enlightened connoisseur. That is why I also make use of the only means that is in some measure within my power to show my gratitude for the gracious confidence with which *Your Excellency* honors me, as though I could contribute something to this aim.[2]

To the same gracious attention with which *Your Excellency* honored the first edition of this work, I now dedicate this second edition as well, and with it at the same time all my other concerns as a writer; and I am, with the deepest reverence,

Your Excellency's
Königsberg, 23 April 1787.
most humble and obedient servant
Immanuel Kant.

PREFACE TO THE SECOND EDITION

Kant asks why logic, mathematics and physics found the secure path of a science while metaphysics has not.

[7] Whether or not the treatment of the cognitions that belong to the business of reason is proceeding on the secure course of a science can soon be judged from the outcome. Suppose that, after many arrangements and preparations, it gets stuck as soon as it comes to its goal; or that, in order to reach this goal, it must often turn back again and take another route; or again, that it is

2 Karl Abraham von Zedlitz (1731–1793), the Prussian minister responsible for education and church affairs (1771–1788); Kant had also dedicated the first edition to him.

not possible to bring its various collaborators into agreement about how their common aim is to be pursued. Then one can always be convinced that such a study has still far from struck the secure course of a science, and is instead mere groping about. And it is already a service to reason to discover this course if possible, even if much that was contained in the aim adopted earlier without reflection has to be given up as futile.

That *logic* has gone this secure course from the earliest times can be seen from the fact that since *Aristotle* it has not had to take a single step backward—unless one wants to count as improvements the removal of a few dispensable subtleties or a clearer specification of what it presents, which belongs more to the elegance than to the security of the science. What is further remarkable about it is that to this day it has also been unable to take a single step forward, and so, to all appearances, it seems to be closed and complete. For when some moderns thought to extend it by inserting, in some cases, *psychological* [8] chapters on the various cognitive powers (imagination, wit); in others, *metaphysical* chapters on the origin of cognition or on the different kinds of certainty according to the difference of objects (idealism, skepticism, and so on); and in still others, *anthropological* chapters on prejudices (their causes and remedies), this comes from their ignorance of the peculiar nature of this science. It is not an increase but a disfigurement of the sciences when one lets their boundaries run into one another. The boundary of logic, however, is determined quite precisely by the fact that it is a science that sets out in detail and strictly proves nothing but the formal rules of all thinking (whether this thinking be *a priori* or empirical, whatever origin or object it may have, and whatever accidental or natural obstacles it may meet with in our mind).

That logic has been so successful is an advantage it owes solely to its limitation. This limitation entitles, indeed obliges, it to abstract from all objects of cognition and their differences, so that in logic the understanding has to do with nothing but itself and its form. It naturally had to be far harder for reason to strike

the secure path of science when it has to deal not merely with itself but also with objects. Hence logic, as a propaedeutic, forms only the vestibule of the sciences, so to speak; and when it is a question of knowledge, a logic is indeed presupposed for judging it, but its acquisition must be sought in the sciences properly and objectively so called.

Now insofar as there is to be reason in these sciences, something in them must be cognized *a priori*. And this cognition of reason can relate to its object in one of two ways: either merely to *determine* the object and its concept (which must be given from elsewhere), or else also to *make it actual*. The first is *theoretical*, the second *practical cognition* of reason. In both, the *pure part*—however much or little it may contain, namely the part in which reason determines its object wholly *a priori*—must first be set out by itself, and what comes from other sources must not be mixed up with it. For it is bad housekeeping to spend blindly whatever comes in, without being able afterward, when the household gets into difficulties, to tell [9] which part of the income can bear the expenditure and from which part it must be cut.

Mathematics and *physics* are the two theoretical cognitions of reason that are supposed to determine their *objects a priori*—the former entirely purely, the latter at least partly purely, but then also according to the measure of sources of cognition other than reason.

Mathematics has gone the secure path of a science from the earliest times to which the history of human reason reaches, among that admirable people, the Greeks. But one must not think that it was as easy for mathematics as for logic, where reason has to do only with itself, to find that royal road, or rather to open it up for itself. Rather, I believe that it long remained at the stage of groping about (above all among the Egyptians), and that this transformation is to be ascribed to a *revolution*, brought about in a single attempt by the happy idea of one man. From then on, the track that had to be taken could no longer be missed, and the secure course of a science was struck and marked out for all time and to an infinite extent. The

history of this revolution in the way of thinking—which was far more important than the discovery of the route around the famous Cape—and of the fortunate man who brought it about, has not been preserved for us. Yet the legend handed down to us by *Diogenes Laertius* names the supposed discoverer of the smallest elements of geometrical demonstration, elements that in common judgment do not even need proof. This legend shows that the memory of the change brought about by the first trace of the discovery of this new path must have seemed extremely important to mathematicians, and so became unforgettable.[3] A light dawned on the first person who demonstrated the *isosceles triangle* (whether his name was *Thales* or whatever you like). For he found that he had not to trace what he saw in the figure, or even the mere concept of it, and as it were learn its properties from that; rather, he had to bring them forth through what he himself thought into it and presented *a priori* according to concepts (through construction). And he found that, to know anything *a priori* with certainty, he must attribute nothing to the thing except what followed necessarily from what he himself had put into it in accordance with his concept.[4]

[10] Natural science took much longer to find the highway of science. For it is only about a century and a half since the proposal of the ingenious *Bacon* of Verulam partly occasioned this discovery and partly, since people were already on its track, gave it fresh life; and it too can be explained only by a revolution in the way of thinking that took place swiftly. Here I will consider natural science only insofar as it is founded on *empirical* principles.

When *Galileo* rolled his balls down the inclined plane with a weight he had chosen himself; or *Torricelli* made the air support a weight that he had previously thought equal to that of a column of water known to him; or, in still later times, *Stahl* turned metals into calx and this back into metal again by with-

3 The Cape of Good Hope, first rounded by Bartolomeu Dias (1488) and on the way to India by Vasco da Gama (1497). Diogenes Laertius (3rd century AD) wrote the *Lives of the Eminent Philosophers*.

4 Thales of Miletus (6th century BC), traditionally the first Greek philosopher and geometer.

drawing something from them and restoring it:[5] a light dawned on all investigators of nature.[6] They grasped that reason has insight only into what it itself brings forth according to its own design. It must lead the way with principles for its judgments according to constant laws, and compel nature to answer its questions, rather than letting itself be led by nature alone, as it were on a leash. For otherwise accidental observations, made according to no plan designed in advance, do not hang together at all in a necessary law—which is just what reason seeks and needs. Reason must approach nature with its principles in one hand—the principles according to which alone agreeing appearances can count as laws—and in the other the experiment it has devised in accordance with them. It must do so in order to be taught by nature, but not in the capacity of a pupil who lets himself be told whatever the teacher wants, but in that of an appointed judge who compels the witnesses to answer the questions he puts to them. And so even physics owes the highly advantageous revolution in its way of thinking solely to the idea of seeking in nature (not falsely ascribing to it), in accordance with what reason itself puts into nature, what reason must learn from nature and would know nothing of by itself. It was through this that natural science was first brought onto the secure course of a science, after it had for so many centuries been nothing more than mere groping about.

[11] *Metaphysics* is an entirely isolated speculative cognition of reason that rises altogether above instruction from experience, and does so through mere concepts (not, like mathematics, through applying them to intuition); here, then, reason is supposed to be its own pupil. Fate has so far not been kind enough to metaphysics to let it strike the secure course of a science—although it is older than all the others, and would remain even if

5 KANT'S NOTE. Here I am not following the thread of the history of the experimental method exactly; its first beginnings are, besides, not well known.

6 Galileo Galilei (1564–1642), Italian physicist; Evangelista Torricelli (1608–1647), inventor of the barometer; Georg Ernst Stahl (1659–1734), German chemist and physician, author of the phlogiston theory. "Calx" is the powdery residue (oxide) left when a metal is heated.

all the rest together were to be swallowed up entirely in the maw of an all-destroying barbarism. For in it reason continually gets stuck, even when it wants to have insight *a priori* (as it presumes it can) into those laws that the commonest experience confirms. In metaphysics one must retrace one's steps countless times, because one finds that the path does not lead where one wants to go. As for agreement among its adherents in their assertions, metaphysics is still so far from it that it is rather an arena—one that seems quite specifically meant for exercising one's strength in mock combat, and in which no combatant has ever yet managed to win even the smallest patch of ground and to found a lasting possession on his victory. There is therefore no doubt that its procedure has so far been mere groping about, and, what is worst of all, groping among mere concepts.

What, then, is the reason that no secure path of science has yet been found here? Is it perhaps impossible? Why, then, has nature afflicted our reason with the restless striving to track it down, as one of its most important concerns? What is more, how little cause have we to place trust in our reason if, in one of the most important parts of our desire for knowledge, it not only abandons us but strings us along with false pretenses and in the end deceives us! Or if the path has merely been missed so far, what clue can we use to hope that by searching anew we will be more fortunate than others before us have been?

THE COPERNICAN HYPOTHESIS

Kant proposes that objects must conform to our cognition, as Copernicus made the spectator revolve instead of the stars.

I should think that the examples of mathematics and natural science, which became what they now are through a revolution accomplished all at once, are remarkable enough to make us reflect on the essential element in the change in the way of thinking that proved so advantageous to them, and, as far as their analogy with metaphysics as cognitions of reason permits, to imitate them in this at least by way of experiment. Up to now

it has been assumed that all our cognition must [12] conform to objects. But all attempts to establish something about them *a priori* through concepts, by which our cognition would be extended, came to nothing under this presupposition. Let us therefore try for once whether we do not get further with the problems of metaphysics by assuming that objects must conform to our cognition. This already agrees better with the required possibility of a cognition of them *a priori*, which is to establish something about objects before they are given to us. Here it is just as it was with the first thoughts of *Copernicus*. When he could make no good progress with explaining the heavenly motions on the assumption that the whole host of stars revolved around the spectator, he tried whether he might not succeed better if he made the spectator revolve and left the stars at rest. Now in metaphysics one can try something similar as regards the *intuition* of objects.[7] If intuition had to conform to the constitution of objects, I do not see how one could know anything about it *a priori*. But if the object (as an object of the senses) conforms to the constitution of our faculty of intuition, I can quite well conceive of this possibility. But I cannot stop at these intuitions if they are to become cognitions; I must relate them, as representations, to something as their object, and determine this object through them. So I can assume either that the *concepts* by which I bring about this determination also conform to the object—and then I am once again in the same difficulty about how I could know anything about it *a priori*. Or else I assume that the objects, or (what comes to the same thing) the *experience* in which alone they are cognized (as given objects), conform to these concepts. Then I immediately see an easier way out. For experience is itself a kind of cognition that requires understanding, whose rule I must presuppose in myself before any objects are given to me, and hence *a priori*. This rule is expressed in concepts *a priori*, to which all objects of experience must therefore necessarily conform, and with which they must

7 Nicolaus Copernicus (1473–1543), Polish astronomer, who proposed that the earth moves around the sun.

agree. As for objects insofar as they are thought merely through reason, and indeed necessarily, but which cannot be given in experience at all (at least not as reason thinks them): the attempts to think them (for they must, after all, be capable of being thought) will later provide a splendid touchstone [13] of what we are adopting as the changed method of our way of thinking—namely, that we cognize *a priori* of things only what we ourselves put into them.[8]

This experiment succeeds as we could wish, and promises metaphysics the secure course of a science in its first part—the part, namely, that deals with concepts *a priori* whose corresponding objects can be given in experience commensurately with them. For after this change in the way of thinking one can quite well explain the possibility of a cognition *a priori*; and, what is more, one can furnish with satisfactory proofs the laws that lie *a priori* at the basis of nature, as the sum total of the objects of experience. Both were impossible by the previous way of proceeding. But from this deduction of our faculty of cognizing *a priori*, in the first part of metaphysics, there emerges a strange result, one that seems very detrimental to the whole purpose of metaphysics with which its second part is occupied: namely, that with this faculty we can never get beyond the boundary of possible experience—which is precisely the most essential concern of this science. But herein lies the very experiment that serves as a counter-test of the truth of the result of

8 KANT'S NOTE. This method, imitated from the natural scientist, therefore consists in this: to seek the elements of pure reason in *what can be confirmed or refuted by an experiment*. Now for testing the propositions of pure reason, especially when they are ventured beyond every boundary of possible experience, no experiment can be made with their *objects* (as in natural science). So it will be feasible only with *concepts* and *principles* that we assume *a priori*, namely by arranging them so that the same objects can be considered, *on the one hand*, as objects of the senses and of the understanding for experience, and *on the other hand* as objects that are merely thought, for isolated reason striving beyond the boundary of experience—and so can be considered from two different sides. Now if it turns out that, when things are considered from this twofold point of view, there is agreement with the principle of pure reason, but that from a single point of view an unavoidable conflict of reason with itself arises, then the experiment decides in favor of the correctness of that distinction.

that first assessment of our cognition of reason *a priori*: namely, that such cognition extends only to appearances, and leaves the thing in itself aside as indeed actual for itself, but uncognized by us. For what necessarily drives us to go beyond the boundary of experience and of all appearances [14] is the *unconditioned*, which reason necessarily, and with every right, demands in things in themselves for everything conditioned, and thereby demands that the series of conditions be completed. Now suppose it turns out that, if we assume that our cognition from experience conforms to objects as things in themselves, the unconditioned *cannot be thought at all without contradiction*; but that, if we assume that our representation of things as they are given to us does not conform to them as things in themselves, but rather that these objects, as appearances, conform to our way of representing, *the contradiction disappears*; and consequently that the unconditioned must be found not in things insofar as we know them (insofar as they are given to us), but in them insofar as we do not know them, as things in themselves: then it becomes evident that what we at first assumed only by way of experiment is well founded.[9] Now, after all progress in this field of the supersensible has been denied to speculative reason, it still remains open to us to try whether data are not to be found in its practical cognition for determining that transcendent concept of reason, the unconditioned, and in this way, as metaphysics wishes, to get beyond the boundary of all possible experience with our cognition *a priori*—though such cognition is possible only in a practical respect. And with such a procedure speculative reason has at least made room for such an extension, even if it had to leave that room empty. So we remain free—indeed we are even called

9 KANT'S NOTE. This experiment of pure reason has much in common with that of the *chemists*, which they sometimes call the experiment of *reduction*, but in general the *synthetic procedure*. The *analysis* of the *metaphysician* separated pure cognition *a priori* into two very heterogeneous elements: that of things as appearances, and that of things in themselves. *Dialectic* combines them again into *agreement* with the necessary idea of reason, the *unconditioned*, and finds that this agreement never comes about except through that distinction, which is therefore the true one.

upon by it—to fill this room, if we can, with practical data of reason.[10]

[15] The business of this critique of pure speculative reason consists in that attempt to change the previous procedure of metaphysics, by undertaking a complete revolution in it following the example of the geometers and natural scientists. It is a treatise on method, not a system of the science itself; but it nonetheless sketches the entire outline of the science, both with regard to its boundaries and with regard to its whole inner articulated structure. For pure speculative reason has this peculiar feature: it can and should measure its own faculty according to the different ways in which it chooses objects for thinking, and also completely enumerate the various ways of setting itself problems, and so sketch the whole outline of a system of metaphysics. As regards the first, this is because in cognition *a priori* nothing can be attributed to objects except what the thinking subject takes from itself. As regards the second, it is because, with respect to principles of cognition, pure speculative reason is a wholly separate unity, subsisting by itself, in which, as in an organized body, every member exists for the sake of all the others and all for the sake of each, and no principle can be taken with certainty in *one* relation without having at the same time been examined in its *thoroughgoing* relation to the entire pure use of reason. In return, however, metaphysics also has a rare good fortune, which can fall to the lot of no other rational sci-

10 KANT'S NOTE. In the same way, the central laws of the motions of the heavenly bodies gave established certainty to what *Copernicus* had at first assumed only as a hypothesis, and at the same time proved the invisible force that binds together the structure of the universe (*Newtonian* attraction). This force would have remained forever undiscovered had Copernicus not dared, in a way that contradicts the senses and yet is true, to seek the observed motions not in the objects of the heavens but in their spectator. In this preface I too put forward only as a hypothesis the change in the way of thinking set out in the *Critique*, which is analogous to that hypothesis. In the treatise itself, however, it is proved not hypothetically but apodictically, from the constitution of our representations of space and time and from the elementary concepts of the understanding. I do so only in order to draw attention to the first attempts at such a change, which are always hypothetical.

TRANSLATOR'S NOTE. Isaac Newton (1643–1727), English physicist, whose law of universal gravitation explained the planetary motions.

ence that deals with objects (for *logic* is concerned only with the form of thinking in general). Once it has been brought onto the secure course of a science by this critique, it can fully comprehend the entire field of the cognitions belonging to it, and so complete its work and lay it down for posterity's use as a capital that can never be increased—because it has to do solely with principles and with the restrictions on their use, which are determined by those principles themselves. As a fundamental science, therefore, it is also obliged to achieve this completeness, and [16] it must be possible to say of it: *nil actum reputans, si quid superesset agendum* [counting nothing done if anything remained to be done].[11]

THE POSITIVE USE OF CRITIQUE

Limiting speculative reason makes room for its practical use, so freedom, God and immortality can at least be thought.

But what sort of treasure is it, people will ask, that we mean to bequeath to posterity with a metaphysics purified by critique, and thereby also brought into a permanent state? On a cursory survey of this work one will think one perceives that its benefit is only *negative*: namely, that we should never venture beyond the boundary of experience with speculative reason. And that is indeed its first benefit. But this benefit at once becomes *positive* when one realizes that the principles with which speculative reason ventures beyond its boundary do not in fact have the *extension* of our use of reason as their inevitable result, but rather, on closer inspection, its *narrowing*. For they actually threaten to extend the boundaries of sensibility, to which they properly belong, over everything, and so to supplant the pure (practical) use of reason altogether. Hence a critique that restricts speculative reason is to that extent *negative*. But since it thereby at the same time removes an obstacle that restricts the practical use of reason, or even threatens to annihilate it, it is in fact of *positive* and very important benefit—as soon as one is con-

11 Adapted from Lucan, *Pharsalia* II.657, where it describes Julius Caesar.

vinced that there is an absolutely necessary practical use of pure reason (the moral use), in which reason unavoidably extends itself beyond the boundaries of sensibility. For this it needs no help from speculative reason; but it must nevertheless be secured against speculative reason's counteraction, so as not to fall into contradiction with itself. To deny that this service of critique has *positive* benefit would be as much as to say that the police provide no positive benefit because their chief business is only to bolt the door against the violence that citizens have to fear from citizens, so that each can pursue his affairs in peace and security. That space and time are only forms of sensible intuition, and hence only conditions of the existence of things as appearances; further, that we have no concepts of the understanding, and hence no elements at all for the cognition of things, except insofar as an intuition corresponding to these concepts can be given; and consequently that we can have cognition of no object as a thing in itself, but only insofar as it is an object of sensible intuition, that is, as appearance—all this is proved in the analytic part of the *Critique*. From this there of course follows the restriction [17] of all possible speculative cognition of reason to mere objects of *experience*. Nevertheless—and this must be well noted—the reservation always remains that we must at least be able to *think* these very same objects as things in themselves, even if we cannot *cognize* them.[12] For otherwise the absurd proposition would follow that there is appearance without anything that appears. Now suppose that the distinction our critique has made necessary, between things as objects of experience and those very same things as things in themselves, had not been made at all. Then the principle of causality, and

12 KANT'S NOTE. To *cognize* an object, I must be able to prove its possibility (whether from its actuality, as attested by experience, or *a priori* through reason). But I can *think* whatever I like, provided only that I do not contradict myself, that is, provided my concept is a possible thought—even though I cannot vouch that, in the sum total of all possibilities, an object corresponds to it or not. To ascribe objective validity to such a concept, however (real possibility, for the former was merely logical possibility), something more is required. But this something more need not be sought in theoretical sources of cognition; it may also lie in practical ones.

hence the mechanism of nature in determining them, would have to hold without exception for all things in general as efficient causes. Of one and the same being, therefore—the human soul, for example—I would be unable to say that its will is free and yet at the same time subject to natural necessity, that is, not free, without falling into an obvious contradiction. For in both propositions I would have taken the soul *in exactly the same meaning*, namely as a thing in general (as a thing in itself), and without a preceding critique I could not have taken it otherwise. But suppose the critique has not erred in teaching us to take the object in *two meanings*, namely as appearance or as thing in itself; and suppose its deduction of the concepts of the understanding is correct, so that the principle of causality applies only to things taken in the first sense, namely insofar as they are objects of experience, while these same things in the second meaning are not subject to it. Then the very same will is thought, in the appearance (visible actions), as necessarily in accordance with the law of nature and to that extent *not free*, and yet on the other hand, as belonging to a thing in itself, as not subject to that law, and hence as *free*—without any contradiction arising. Now I cannot *cognize* my soul, considered from the [18] latter side, through any speculative reason (still less through empirical observation), and hence I cannot cognize freedom either, as a property of a being to which I ascribe effects in the sensible world. For I would have to cognize such a being as determined in its existence, and yet not in time (which is impossible, since I cannot supply any intuition for my concept). Nevertheless I can *think* freedom; that is, the representation of it at least contains no contradiction—provided our critical distinction between the two ways of representing (the sensible and the intellectual) holds good, together with the restriction of the pure concepts of the understanding that arises from it, and hence also of the principles that flow from them. Now suppose that morals necessarily presupposes freedom (in the strictest sense) as a property of our will, since it cites original practical principles lying in our reason as *data* of reason *a priori*, principles

that would be absolutely impossible without the presupposition of freedom; but suppose that speculative reason had proved that freedom cannot be thought at all. Then that presupposition, the moral one, would necessarily have to give way to the one whose opposite contains an obvious contradiction; and consequently *freedom*, and with it morality (for the opposite of morality contains no contradiction unless freedom is already presupposed), would have to yield its place to the *mechanism of nature*. But as it is, all I need for morals is that freedom should not contradict itself, and so can at least be thought, without my needing any further insight into it; and hence that it should place no obstacle at all in the way of the natural mechanism of the very same action (taken in another relation). So the doctrine of morality keeps its place, and the doctrine of nature keeps its own. This would not have been possible, however, had critique not first taught us our unavoidable ignorance with respect to things in themselves, and restricted everything we can *cognize* theoretically to mere appearances. The same discussion of the positive benefit of critical principles of pure reason could be given with regard to the concept of *God* and of the *simple nature* of our *soul*, but for brevity's sake I pass over it. So I cannot even *assume God, freedom* and *immortality* for the sake of the necessary practical use of my reason unless I at the same time *take away* from speculative reason its pretension to extravagant insights. For in order to reach them, speculative reason must make use of [19] principles that in fact extend only to objects of possible experience; and if they are nevertheless applied to what cannot be an object of experience, they actually always turn it into an appearance, and so declare all *practical extension* of pure reason to be impossible. I therefore had to do away with *knowledge* in order to make room for *faith*. And the dogmatism of metaphysics—that is, the prejudice that one can make progress in it without a critique of pure reason—is the true source of all the unbelief that conflicts with morality, an unbelief that is always very dogmatic indeed.[13] If,

13 *Wissen* (knowledge) is not Kant's technical *Erkenntnis* (cognition); *Glauben* can mean faith or belief. *Aufheben* ("do away with") can also mean to cancel or to lift.

then, it is not exactly difficult to leave posterity a legacy in the form of a systematic metaphysics drawn up according to the standard of the critique of pure reason, this is no gift to be held in low esteem. Consider merely the cultivation of reason through the secure course of a science in general, compared with reason's groundless groping and frivolous roaming about without critique. Or consider the better use of time by inquisitive young people, who under the usual dogmatism receive so early and so much encouragement to indulge in easy pseudo-reasoning about things they understand nothing of, and into which they, like anyone else in the world, will never have any insight—or even to set out inventing new thoughts and opinions, and so to neglect the learning of thorough sciences. Above all, though, take into account the inestimable advantage of putting an end for all time to all objections against morality and religion in the *Socratic* manner, namely through the clearest proof of the ignorance of the opponents. For there has always been some metaphysics or other in the world, and there will no doubt continue to be; but along with it there will also be found a dialectic of pure reason, because dialectic is natural to reason. It is therefore the first and most important concern of philosophy to deprive dialectic of all its harmful influence once and for all, by stopping up the source of the errors.

Despite this important change in the field of the sciences, and the *loss* that speculative reason must suffer in the possessions it has so far imagined it had, everything concerning the universal human interest, and the benefit the world has so far drawn from the teachings of pure reason, remains in the same advantageous state as it ever was. The loss affects only the *monopoly of the schools*, but by no means the *interest of human beings*. I ask the most inflexible dogmatist [20] whether the proof of the continued existence of our soul after death from the simplicity of substance; or the proof of the freedom of the will against universal mechanism through the subtle, though powerless, distinctions between subjective and objective practical necessity; or the proof of the existence of God from the concept of a most real

being (from the contingency of what is changeable and the necessity of a first mover)—whether these proofs, once they had gone forth from the schools, have ever been able to reach the public and have the slightest influence on its conviction. This has not happened, and on account of the unfitness of the common human understanding for such subtle speculation it can never be expected either. Rather, the conviction that has spread to the public, insofar as it rests on rational grounds, must have been produced entirely by other things. As regards the first, the hope of a *future life* must have been produced solely by the predisposition of our nature, noticeable to everyone, never to be satisfied by what is temporal (as inadequate to the predispositions of our whole vocation); as regards the second, the consciousness of *freedom* by the mere clear presentation of duties in opposition to all the claims of the inclinations; and finally, as regards the third, the belief in a wise and great *author of the world* by the splendid order, beauty and providential care that shine forth everywhere in nature. If so, then not only does this possession remain undisturbed, but it even gains in standing, because the schools are now taught not to claim, on a point that concerns universal human concerns, any higher or more extensive insight than the one the great multitude (for us the most worthy of respect) can reach just as easily, and so to confine themselves to cultivating only these grounds of proof, which are universally comprehensible and sufficient for moral purposes. The change therefore affects only the arrogant claims of the schools, which would gladly be taken in this matter (as they rightly are in many other respects) for the sole experts in and guardians of such truths—truths whose use they impart to the public while keeping the key to them for themselves (*quod mecum nescit, solus vult scire videri* [what he does not know along with me, he alone wants to seem to know]). Nevertheless, provision has also been made for a fairer claim on the part of the speculative philosopher.[14] He always remains the exclusive trustee of a science that is useful to the public without its know-

14 Adapted from Horace, *Epistles* II.1.87.

ing it, namely the critique of reason. For this critique can never become popular, but it also has no need [21] to be. Just as the finely spun arguments for useful truths will not go into the heads of the people, so the equally subtle objections to them never enter their minds either. On the other hand, because the school, like every human being who rises to speculation, unavoidably falls into both, the school is obliged, through a thorough investigation of the rights of speculative reason, to prevent once and for all the scandal that sooner or later is bound to strike even the people—the scandal of the disputes in which metaphysicians (and, as such, eventually clergy too) inevitably become entangled without critique, and which afterward even falsify their teachings. Through this critique alone can the very root be cut of *materialism*, *fatalism*, *atheism*, of freethinking *unbelief*, of *fanaticism* and *superstition*, which can become universally harmful; and finally also of *idealism* and *skepticism*, which are more dangerous to the schools and can hardly pass over into the public.[15] If governments do see fit to concern themselves with the affairs of scholars, it would be far more in keeping with their wise care for the sciences, as well as for human beings, to favor the freedom of such a critique, by which alone the labors of reason can be put on a firm footing, than to support the ridiculous despotism of the schools. These raise a loud outcry about public danger whenever someone tears their cobwebs—cobwebs of which the public has never taken any notice, and whose loss it can therefore never feel either.

Critique is not opposed to the *dogmatic procedure* of reason in its pure cognition as science (for science must always be dogmatic, that is, strictly proving from secure principles *a priori*). It is opposed to *dogmatism*, that is, to the presumption of getting on solely with a pure cognition from concepts (philosophical cognition) according to principles such as reason has long been using, without inquiring into the way and the right by which it has arrived at them. Dogmatism is therefore the dogmatic pro-

15 *Schwärmerei*, often translated "enthusiasm": the claim to direct insight or inspiration beyond the bounds of reason.

cedure of pure reason *without a preceding critique of its own faculty*. This opposition, then, is not meant to speak in favor of garrulous shallowness under the presumptuous name of popularity, or still less of skepticism, which makes short work of all metaphysics. Rather, critique is the necessary preliminary measure for promoting a thorough metaphysics as science. Such a metaphysics must necessarily be carried out dogmatically [22] and, according to the strictest requirement, systematically, and hence in due academic form (not popularly). For this requirement on it is unremitting, since it undertakes to carry out its business wholly *a priori*, and hence to the complete satisfaction of speculative reason. In carrying out the plan that the critique prescribes, that is, in the future system of metaphysics, we must one day follow the strict method of the famous *Wolff*, the greatest of all dogmatic philosophers. He was the first to show by example (and by this example became the originator of the spirit of thoroughness in Germany, which has not yet died out) how the secure course of a science is to be taken: through the lawful establishment of principles, the clear determination of concepts, tested rigor in proofs, and the avoidance of bold leaps in drawing inferences. For this very reason he was also exceptionally well suited to put a science such as metaphysics into this state—if only it had occurred to him first to prepare the field for himself through a critique of the organ, namely of pure reason itself. This shortcoming is to be attributed not so much to him as to the dogmatic way of thinking of his age, and on this score the philosophers of his own time, as of all earlier times, have nothing to reproach one another with.[16] Those who reject his method, and yet at the same time also the procedure of the critique of pure reason, can have nothing else in mind than to throw off the fetters of *science* altogether, and to turn work into play, certainty into opinion, and philosophy into philodoxy.[17]

16 Christian Wolff (1679–1754), German philosopher who systematized Leibniz's rationalism; his school dominated German universities in Kant's youth.
17 *Philodoxy*: love of opinion (Greek *doxa*), as against philosophy, the love of wisdom.

WHAT THE SECOND EDITION CHANGES

Kant lists the passages he has rewritten for clarity and leaves defense of the system to others.

As for this second edition, I have, as was only right, not wanted to let the opportunity pass without remedying as far as possible the difficulties and obscurity that may have given rise to several misinterpretations, which acute men have run into in judging this book, perhaps not without fault on my part. In the propositions themselves and their grounds of proof, as well as in the form and completeness of the plan, I have found nothing to change. This is to be attributed partly to the long examination to which I had subjected them before presenting the work to the public, and partly to the constitution of the subject matter itself, namely the nature of a pure speculative reason. It contains a true articulated structure in which everything is an organ: that is, all is there for the sake of each, and each single part for the sake of all. Hence every infirmity, however small, whether a fault (error) or a deficiency, must inevitably betray itself in use. In this unchangeability [23] the system will, I hope, maintain itself in the future too. What justifies me in this confidence is not self-conceit but merely the evidence produced by the experiment of the sameness of the result, whether one proceeds from the smallest elements to the whole of pure reason, or goes back from the whole (for this too is given for itself through the final aim of pure reason in the practical sphere) to each part. For the attempt to alter even the smallest part immediately brings on contradictions, not merely of the system but of universal human reason. In the *presentation,* however, there is still much to do, and here I have attempted improvements in this edition. They are meant to remedy, first, the misunderstanding of the Aesthetic, especially in the concept of time; second, the obscurity of the deduction of the concepts of the understanding; third, the supposed lack of sufficient evidence in the proofs of the principles of pure understanding; and finally, the misinterpretation

of the paralogisms charged against rational psychology. Up to this point (namely only up to the end of the first chapter of the transcendental dialectic), and no further, do my changes in the

manner of presentation extend.[18] For time was too short, and in respect [24] of the rest I had not come across any misunderstanding on the part of expert and impartial examiners. Even without my naming them with the praise [25] due to them, they will find for themselves, in the appropriate places, the consideration I have given to their remarks. This improvement, however, involves a small loss for the reader, which could not be prevented without making the book far too voluminous. Various things that do not belong essentially to the completeness of the whole, but which many a reader might nevertheless be sorry to miss, since they may be useful in other respects, have had to be omitted or presented in abbreviated form, in order to make room for what I hope is now a more comprehensible presentation. At bottom this presentation changes absolutely nothing with regard to the propositions and even their grounds of proof; but here and there it departs so far from the earlier one in its method of exposition that it could not be accomplished by inserting passages. This small loss, which in any case anyone can make good as he pleases by comparison with the first edition, will, I hope, be more than outweighed by the greater comprehensibility. In various public writings (partly in reviews of several books, partly in separate treatises) I have noted with grateful pleasure that the spirit of thoroughness in Germany has not died out, but has only been shouted down for a short time by the fashionable tone of a freedom in thinking that affects genius. I have noted too that the thorny paths of critique, which lead to a science of pure reason that is academic in form, but as such alone lasting and therefore highly necessary, have not prevented courageous and clear-headed minds from mastering it. To these deserving men, who so happily combine thoroughness of insight with the talent for a lucid presentation (a talent I am not exactly aware of possessing), I leave the completion of my treatment, which in this latter respect may here and there still be deficient. For in this case the danger is not of being refuted, but of not being understood. For my part, I cannot from now on engage in dis-

putes, although I will pay careful attention to all hints, whether from friends or opponents, in order to make use of them in the

future execution of the system in accordance with this propaedeutic. Since in the course of these labors I have already

advanced fairly far into old age (this month I enter my sixty-fourth year), I must be sparing with my time if I am to carry out

my [26] plan of providing the metaphysics of nature as well as of morals, as confirmation of the correctness of the critique of

speculative as well as of practical reason. I must therefore look to the deserving men who have made this work their own, both

to clear up the obscurities in it, which were hardly avoidable at the outset, and to defend the whole. Any philosophical exposi-

tion can be picked at in particular passages (for it cannot come forward as heavily armored as a mathematical one), while the

articulated structure of the system, considered as a unity, runs not the slightest danger thereby. When a system is new, only a

few have the agility of mind to survey it, and still fewer have the inclination, since all innovation is inconvenient to them. Appar-

ent contradictions, too, can be picked out of any writing, especially one that proceeds as free discourse, if one compares indi-

vidual passages torn from their context. In the eyes of someone who relies on the judgment of others, these cast an unfavorable

light on the writing; but they are very easy to resolve for someone who has mastered the idea as a whole. Meanwhile, if a

theory has stability in itself, the action and reaction that at first threatened it with great danger serve over time only to smooth

with respect to the essential purposes of metaphysics (which in fact it is not), it remains a scandal of philosophy and of universal human reason that the existence of things outside us (from which, after all, we get the whole material for cognitions, even for our inner sense) must be accepted merely on *faith*, and that if anyone takes it into his head to doubt it, we are unable to counter him with any satisfactory proof. Because there is some obscurity in the wording of the proof from the third line to the sixth, I ask that this sentence be altered as follows: *But this persistent thing cannot be an intuition in me. For all the grounds determining my existence that can be found in me are representations, and as such they themselves require something persistent distinct from them, in relation to which their change, and so my existence in the time in which they change, can be determined.*" Against this proof it will presumably be said: I am immediately conscious only of what is in me, that is, of my *representation* of outer things; consequently it still remains undecided whether something corresponding to it exists outside me or not. But I am conscious through inner experience of *my existence in time* (and consequently also of its determinability in time), and this is more than merely being conscious of my representation. It is, however, the same as the *empirical consciousness of my existence*, which is determinable only through relation to something that is bound up with my existence and *is outside me*. This consciousness of my existence in time is therefore identically bound up with the consciousness of a relation to something outside me. So it is experience and not fiction, sense and not imagination, that inseparably connects what is outer with my inner sense. For outer sense is already in itself a relation of intuition to something actual outside me; and its reality, as distinct from imagining, rests solely on its being inseparably bound up with inner experience itself, as the condition of its possibility—which is what happens here. If, with the *intellectual consciousness* of my existence in the representation *I am*, which accompanies all my judgments and acts of the understanding, I could at the same time combine a determination of my existence through *intellectual intuition*, then the consciousness of a relation to something outside me would not necessarily belong to it. Now, however, although that intellectual consciousness does come first, the inner intuition in which alone my existence can be determined is sensible and bound to the condition of time. This determination, however, and hence inner experience itself, depends on something persistent that is not in me, and consequently can only be in something outside me, in relation to which I must regard myself. So the reality of outer sense is necessarily bound up with that of inner sense for the possibility of an experience in general: that is, I am just as certainly conscious that there are things outside me that relate to my sense as I am conscious that I myself exist as determined in time. But which given intuitions actually correspond to objects outside me, and so belong to outer *sense*, to which they are to be ascribed rather than to the imagination, must be decided in each particular case according to the rules by which experience in general (even inner experience) is distinguished from imagining; and here the proposition that there really is outer experience always lies at the basis. To this one may add the following remark. The representation of something *persistent* in existence is not the same as a *persistent representation*. For such a representation can be very variable and changing, as are all our representations, even those of matter; and yet it relates to something persistent, which must therefore be a thing distinct from all my representations and external to me. The existence of this thing is necessarily included in the *determination* of my own existence, and together with it makes up only a single experience, which would not take place even inwardly if it were not (in part) at the same time outer. The how of this can no more be explained any further here than can how we think in general what abides in time, whose simultaneity with what changes produces the concept of alteration.

away its unevenness; and if men of impartiality, insight and true

TRANSLATOR'S NOTE. Page 274 of the 1787 edition: the "Refutation of Idealism" in the chapter on the principles of pure understanding.

popularity occupy themselves with it, they also serve to give it, in a short time, the elegance it requires. *Königsberg*, April 1787.

Introduction

The distinction between analytic and synthetic judgments, and the question: how are synthetic judgments a priori possible?

I VON DEM UNTERSCHIEDE DER REINEN UND EMPIRISCHEN ERKENNTNISS.

[27] There is no doubt whatever that all our cognition begins with experience. For how else should the cognitive faculty be awakened into exercise, if not through objects that stir our senses? These objects partly produce representations by themselves, and partly set the activity of our understanding in motion—to compare these representations, to connect or separate them, and so to work up the raw material of sensory impressions into a cognition of objects, which is called experience. *In time*, therefore, no cognition in us precedes experience, and with experience all cognition begins.

But although all our cognition begins *with* experience, it does not follow that it all arises *from* experience. For it might well be that even our empirical cognition is a composite of what we receive through impressions and of what our own cognitive faculty (merely prompted by sensory impressions) supplies from itself. We would not distinguish this addition from that basic material until long practice had made us attentive to it and skilled at separating it out.

[28] It is therefore at least a question that still needs closer investigation, and that cannot be dismissed at first glance: whether there is any such cognition independent of experience, and even of all impressions of the senses. Such cognitions are

called *a priori*, and are distinguished from *empirical* cognitions, which have their sources *a posteriori*, namely in experience.

That expression, however, is not yet determinate enough to indicate adequately the whole sense of the question before us. For it is customary to say of many a cognition derived from sources in experience that we are capable of it, or share in it, *a priori*, because we derive it not immediately from experience but from a general rule—a rule that we have nevertheless borrowed from experience itself. Thus it is said of someone who undermined the foundations of his house that he could have known *a priori* that it would collapse; that is, he did not need to wait for the experience of its actually collapsing. Yet he still could not have known this entirely *a priori*. For he first had to learn through experience that bodies are heavy, and therefore fall when their support is taken away.

In what follows, therefore, we will understand by cognitions *a priori* not those that occur independently of this or that experience, but those that occur independently of all experience *absolutely*. Opposed to them are empirical cognitions, or those that are possible only *a posteriori*, that is, through experience. Among cognitions *a priori*, however, those are called pure with which nothing empirical at all is mixed. Thus, for example, the proposition "Every change has its cause" is a proposition *a priori*, but not a pure one, because change is a concept that can be drawn only from experience.

II. WE POSSESS COGNITIONS A PRIORI

Necessity and strict universality mark cognition a priori, found in mathematics and in the concept of cause.

What we need here is a mark by which we can reliably distinguish a pure cognition from an empirical one. Experience does indeed teach us that something is constituted in this way or that, but not that it could not be otherwise. *First*, then, if we find a proposition that is thought together with its *necessity*, it is a judgment *a priori*; and if, in addition, [29] it is derived from none

except one that is itself valid as a necessary proposition, then it is absolutely *a priori*. *Second*: experience never gives its judgments true or strict *universality*, but only assumed and comparative universality (through induction). So what we should really say is this: as far as we have observed up to now, no exception is found to this or that rule. If, then, a judgment is thought with strict universality—that is, in such a way that no exception at all is allowed as possible—it is not derived from experience, but is valid absolutely *a priori*. Empirical universality is therefore only an arbitrary raising of validity, from validity in most cases to validity in all, as for instance in the proposition "All bodies are heavy." Where, by contrast, strict universality belongs essentially to a judgment, it points to a special source of cognition for that judgment, namely a faculty of cognition *a priori*. Necessity and strict universality are therefore sure marks of a cognition *a priori*, and they also belong inseparably together. In using them, however, it is sometimes easier to show the empirical limitation of a judgment than its contingency; or sometimes it is more evident to show the unlimited universality we ascribe to a judgment than its necessity. It is therefore advisable to employ these two criteria separately, each of which is infallible on its own.

Now it is easy to show that there actually are in human cognition such judgments—necessary and universal in the strictest sense, and therefore pure judgments *a priori*. If one wants an example from the sciences, one need only look at all the propositions of mathematics. If one wants an example from the most common use of the understanding, the proposition that every change must have a cause will serve. Indeed, in the latter case the very concept of a cause so manifestly contains the concept of a necessity of connection with an effect, and of a strict universality of the rule, that the concept would be lost entirely if one tried to derive it, as *Hume* did, from a frequent association of what happens with what precedes it, and from a resulting habit (and so a merely subjective necessity) of connecting representa-

tions.[1] Even without needing such examples to prove the actuality of pure principles *a priori* in our cognition, one could also establish that they are indispensable for the possibility of [30] experience itself, and so establish it *a priori*. For where would experience itself get its certainty, if all the rules by which it proceeds were in turn always empirical, and therefore contingent? Such rules can hardly be accepted as first principles. Here, however, we may be content with having set out the pure use of our cognitive faculty as a fact, together with its marks. But it is not only in judgments; even in concepts some reveal an origin *a priori*. From your empirical concept of a *body*, remove one by one everything in it that is empirical: the color, the hardness or softness, the weight, even the impenetrability. There still remains the *space* that the body (now entirely vanished) occupied, and this you cannot remove. In the same way, if from your empirical concept of any object, corporeal or not, you remove all the properties that experience teaches you, you still cannot take from it the property by which you think it as a *substance*, or as *inhering* in a substance (although this concept contains more determination than that of an object in general). Convinced, then, by the necessity with which this concept forces itself upon you, you must admit that it has its seat *a priori* in your cognitive faculty.

III. THE NEED FOR A SCIENCE OF A PRIORI COGNITION

Reason ventures beyond experience into questions of God, freedom and immortality without first testing its powers.

What says far more than all the foregoing is this: certain cognitions even leave the field of all possible experiences, and, by means of concepts to which no corresponding object can be given anywhere in experience, seem to extend the scope of our judgments beyond all its boundaries.

And it is precisely in these latter cognitions, which go beyond the sensible world, where experience can give neither guidance

1 David Hume (1711–1776), Scottish philosopher, who traced our idea of necessary connection between cause and effect to custom or habit.

nor correction, that the investigations of our reason lie. We consider these far more excellent in [31] importance, and their final aim far more sublime, than anything the understanding can learn in the field of appearances. Here we would sooner risk everything, even at the danger of erring, than give up such pressing investigations out of any sort of misgiving, or out of disdain and indifference. These unavoidable problems of pure reason itself are *God*, *freedom*, and *immortality*. The science whose final aim, with all its preparations, is really directed only at solving them is called *metaphysics*. Its procedure is at first *dogmatic*, that is, it confidently undertakes to carry out so great an enterprise without a prior examination of whether reason is capable or incapable of it.

Now it seems natural that, as soon as one has left the ground of experience, one would not immediately erect a building with cognitions one possesses without knowing where they come from, and on the credit of principles whose origin one does not know, without first making sure of its foundation through careful investigations. It seems natural, then, that the question would long ago have been raised how the understanding could arrive at all these cognitions *a priori*, and what scope, validity, and value they may have. And in fact nothing is more natural, if by the word *natural* one understands what ought to happen fairly and reasonably. But if one understands by it what usually happens, then, conversely, nothing is more natural and more understandable than that this investigation should long have been neglected. For one part of these cognitions, the mathematical, has long been in possession of reliability, and so raises favorable expectations for others too, even though these may be of an entirely different nature. Besides, once one is beyond the circle of experience, one is sure not to be refuted by experience. The appeal of extending one's cognitions is so great that one can be stopped in one's progress only by running into a clear contradiction. But this [32] can be avoided if one makes one's inventions cautiously, without their being any less inventions for that. Mathematics gives us a splendid example of how far we can get

in cognition *a priori* independently of experience. Now it is true that mathematics deals with objects and cognitions only so far as these can be presented in intuition. But this circumstance is easily overlooked, because that intuition can itself be given *a priori*, and so is hardly distinguished from a mere pure concept. Captivated by such a proof of the power of reason, the drive to extend cognition sees no boundaries. The light dove, cleaving the air in free flight and feeling its resistance, might imagine that it would fly far better still in airless space. In just the same way Plato abandoned the sensible world, because it sets such narrow limits to the understanding, and ventured beyond it on the wings of the ideas into the empty space of the pure understanding. He did not notice that with all his efforts he gained no ground; for he had no resistance, no support, as it were, against which he could brace himself and apply his powers in order to set the understanding in motion.[2] It is, however, a common fate of human reason in speculation to finish its building as early as possible, and only afterward to investigate whether the foundation has been well laid. Then all sorts of excuses are sought to reassure us about its soundness, or else to refuse such a late and dangerous examination altogether. But what keeps us free of all anxiety and suspicion while we are building, and flatters us with a seeming thoroughness, is this. A great part—perhaps the greatest part—of the business of our reason consists in *analyses* of the concepts we already have of objects. This supplies us with a multitude of cognitions which, although they are nothing more than clarifications or explanations of what has already been thought in our concepts (though still in a confused way), are nevertheless prized, at least as regards their form, as new insights. [33] As regards their matter or content, however, they do not extend the concepts we have, but only set them out. Now since this procedure does yield an actual cognition *a priori*, one that makes sure and useful progress, reason, without itself noticing it, surreptitiously introduces under this pretense assertions

2 Plato (c. 428–348 BC), Greek philosopher, who held that true knowledge is of eternal Forms or Ideas beyond the world of the senses.

of an entirely different kind. In these, reason adds to given concepts others that are entirely foreign to them, and does so *a priori*, without anyone knowing how it arrives at them, and without even allowing such a question to come to mind. I will therefore deal at the very outset with the distinction between these two kinds of cognition.

IV. ANALYTIC AND SYNTHETIC JUDGMENTS

Analytic judgments explicate what a concept contains; synthetic judgments add a predicate not contained in it.

In all judgments in which the relation of a subject to the predicate is thought (I consider only affirmative judgments here, since the application to negative ones is easy afterward), this relation is possible in two ways. Either the predicate B belongs to the subject A as something that is (covertly) contained in this concept A; or B lies entirely outside the concept A, though it does stand in connection with it. In the first case I call the judgment *analytic*, in the second *synthetic*. Analytic judgments (affirmative ones) are therefore those in which the connection of the predicate with the subject is thought through identity; those in which this connection is thought without identity are to be called synthetic judgments. The former could also be called *explicative* judgments, the latter *ampliative* judgments. For the former add nothing to the concept of the subject through the predicate, but only break it up, by analysis, into its component concepts, which were already thought in it (though confusedly). The latter, by contrast, add to the concept of the subject a predicate that was not thought in it at all, and could not have been extracted from it by any analysis. [34] For example, if I say, "All bodies are extended," this is an analytic judgment. For I need not go beyond the concept that I connect with the word "body" in order to find extension connected with it. I need only analyze that concept, that is, become conscious of the manifold that I always think in it, in order to find this predicate in it; it is therefore an analytic judgment. By contrast, if I say, "All bodies are

heavy," the predicate is something entirely different from what I think in the mere concept of a body in general. The addition of such a predicate therefore yields a synthetic judgment.

Judgments of experience, as such, are all synthetic. For it would be absurd to ground an analytic judgment on experience, since I do not need to go outside my concept at all in order to frame the judgment, and so need no testimony from experience for it. That a body is extended is a proposition that holds *a priori*, and not a judgment of experience. For before I go to experience, I already have all the conditions for my judgment in the concept. From it I need only extract the predicate according to the principle of contradiction, and in doing so I can at the same time become conscious of the necessity of the judgment—which experience would never even teach me. By contrast, although I do not include the predicate of weight in the concept of a body in general at all, that concept still designates an object of experience through a part of that experience; and to this part I can therefore add further parts of the very same experience, as belonging to the first. [35] I can first cognize the concept of body analytically, through the marks of extension, impenetrability, shape, and so on, all of which are thought in this concept. But now I extend my cognition: looking back to the experience from which I had abstracted this concept of body, I find weight also always connected with the marks above, and so I add it *synthetically* as a predicate to that concept. It is therefore experience on which the possibility of the synthesis of the predicate of weight with the concept of body is grounded. For although neither concept is contained in the other, both belong to each other—though only contingently—as parts of a whole, namely of experience, which is itself a synthetic combination of intuitions.

But in synthetic judgments *a priori* this aid is entirely lacking. If I am to go beyond the concept A in order to cognize another, B, as combined with it, what is it that I rely on, and through which the synthesis becomes possible, since here I do not have the advantage of looking around for it in the field of experience? Take the proposition "Everything that happens has its cause." In

the concept of something that happens I do indeed think an existence preceded by a time, and so on, and from this analytic judgments can be drawn. But the concept of a cause lies entirely outside that concept. It indicates something different from what happens, and so is not contained in this latter representation at all. How, then, do I come to say of what happens in general something entirely different from it, and to cognize the concept of cause—though it is not contained in the former—as belonging to it, and indeed necessarily? What is the unknown = x here, on which the understanding relies when it believes it finds, outside the concept of A, a predicate B foreign to that concept, [36] which it nevertheless considers to be connected with it? It cannot be experience. For the principle just cited adds this second representation to the first not only with greater universality than experience can provide, but also with the expression of necessity, and therefore entirely *a priori* and from mere concepts. Now on such synthetic, that is, ampliative principles rests the whole final aim of our speculative cognition *a priori*. The analytic principles are indeed highly important and necessary, but only for attaining that distinctness of concepts which is required for a sure and wide-ranging synthesis, as for a genuinely new acquisition.

V. SYNTHETIC A PRIORI JUDGMENTS IN THE SCIENCES

Mathematics, natural science and metaphysics all contain synthetic judgments a priori as principles.

1. *Mathematical judgments are all synthetic*. This proposition seems to have escaped the notice of those who have analyzed human reason up to now—indeed, to be directly opposed to all their conjectures—although it is irrefutably certain and very important in its consequences. For because people found that the inferences of mathematicians all proceed according to the principle of contradiction (as the nature of any apodictic certainty requires), they persuaded themselves that the principles too were cognized from the principle of contradiction. In this

they were mistaken. For a synthetic proposition can indeed be grasped according to the principle of contradiction, but only if another synthetic proposition is presupposed from which it can be inferred—never in itself.[3]

First of all, it must be observed that mathematical propositions, properly so called, are always judgments *a priori* and not empirical ones, because they carry necessity [37] with them, which cannot be taken from experience. But if this is not conceded, very well: I restrict my proposition to *pure mathematics*, whose very concept implies that it contains not empirical but merely pure cognition *a priori*.

At first one might well think that the proposition 7 + 5 = 12 is a merely analytic proposition that follows from the concept of a sum of seven and five according to the principle of contradiction. But on closer inspection one finds that the concept of the sum of 7 and 5 contains nothing more than the union of both numbers into a single one, and this in no way thinks what that single number is which comprises both. The concept of twelve is by no means already thought merely by my thinking that union of seven and five; and however long I analyze my concept of such a possible sum, I will still not find twelve in it. One must go beyond these concepts, calling on the help of the intuition that corresponds to one of the two—one's five fingers, say, or (as *Segner* does in his arithmetic) five points—and so add, one by one, the units of the five given in intuition to the concept of seven. For I first take the number 7, and, calling on the fingers of my hand as intuition for the concept of 5, I now add one by one to the number 7, in that image of mine, the units that I previously took together to make up the number 5, and so I see the number 12 arise.[4] That 5 *was to be* added to 7, I did indeed think in the concept of a sum = 7 + 5, but not that this sum is equal to the number 12. Arithmetical propositions are therefore always synthetic. One becomes all the more clearly aware of this if one

3 *Apodictic*: necessarily certain, admitting no possibility of the opposite.
4 Johann Andreas von Segner (1704–1777), German mathematician and physicist, author of an arithmetic textbook.

takes somewhat larger numbers. For then it is plainly evident that, however we might turn and twist our concepts, we could never find the sum by means of the mere analysis of our concepts, without calling on the help of intuition.

[38] Just as little is any principle of pure geometry analytic. That the straight line between two points is the shortest is a synthetic proposition. For my concept of *straight* contains nothing of magnitude, but only a quality. The concept of the shortest is therefore wholly added, and cannot be extracted from the concept of the straight line by any analysis. Here, then, intuition must be called on for help, by means of which alone the synthesis is possible.

Some few principles that geometers presuppose are indeed actually analytic and rest on the principle of contradiction; but, like identical propositions, they serve only as links in the chain of method, not as principles—for example a = a, the whole is equal to itself, or (a + b) > a, that is, the whole is greater than its part. And yet even these, although they are valid according to mere concepts, are admitted in mathematics only because they can be presented in intuition. What commonly makes us believe here that the predicate of such apodictic judgments already lies in our concept, and that the judgment is therefore analytic, is merely the ambiguity of the expression. We *are to* add a certain predicate in thought to a given concept, and this necessity already attaches to the concepts. But the question is not what we *are to think* in addition to the given concept, but what we *actually think* in it, though only obscurely. And then it becomes clear that the predicate does attach to those concepts necessarily, but not as thought in the concept itself; rather, it attaches by means of an intuition that must be added to the concept.

2. *Natural science* (*Physica* [physics]) *contains synthetic judgments* a priori *as principles*. I will cite only a couple of propositions as examples: the proposition that in all changes in the corporeal world the quantity of matter remains unchanged, or that in all communication of motion action and reaction must always be equal to each other. In both, it is clear not only that

they are necessary, and so of *a priori* origin, but also that they are synthetic propositions. For in the concept of matter I do not think [39] its persistence, but only its presence in space through its filling of space. So I really do go beyond the concept of matter, in order to add to it in thought, *a priori*, something that I did not think *in it*. The proposition is therefore not analytic but synthetic, and yet thought *a priori*; and so it is with the remaining propositions of the pure part of natural science.

3. *In metaphysics*—even if it is regarded as a science that has so far merely been attempted, but that is nevertheless indispensable by the nature of human reason—*synthetic cognitions* a priori *are supposed to be contained*. Its concern is not merely to analyze concepts that we form of things *a priori*, and thereby to explain them analytically. Rather, we want to extend our cognition *a priori*. For this we must use principles that add to the given concept something that was not contained in it, and that, through synthetic judgments *a priori*, go so far beyond it that experience itself cannot follow us that far—for example, in the proposition "The world must have a first beginning," and so on. And so metaphysics, at least *as regards its end*, consists of nothing but synthetic propositions *a priori*.

VI. THE GENERAL PROBLEM OF PURE REASON

Everything turns on one question: how are synthetic judgments a priori possible?

Much is already gained if one can bring a multitude of investigations under the formula of a single problem. For in this way one not only makes one's own business easier, by determining it precisely, but also makes it easier for anyone else who wants to examine it to judge whether or not we have done justice to our undertaking. Now the real problem of pure reason is contained in the question: *How are synthetic judgments* a priori *possible?*

That metaphysics has remained until now in so wavering a state of uncertainty and contradictions is to be ascribed solely to this cause: that people did not earlier let this problem, and per-

haps not even the distinction between *analytic* and *synthetic* judgments, enter their thoughts. On the solution of this problem, or on a satisfactory proof that the possibility it demands to have [40] explained does not in fact exist at all, the standing or falling of metaphysics now depends. *David Hume*, who of all philosophers came nearest to this problem, but who still conceived it far from determinately enough and in its universality, and stopped short at the synthetic proposition of the connection of the effect with its causes (*Principium causalitatis* [the principle of causality]), believed he had established that such a proposition is entirely impossible *a priori*. By his inferences, everything we call metaphysics would come down to a mere delusion of supposed rational insight into what is in fact merely borrowed from experience and has acquired the illusion of necessity through habit. He would never have fallen into this assertion, which destroys all pure philosophy, if he had had our problem before his eyes in its universality. For then he would have seen that, according to his argument, there could be no pure mathematics either, since it certainly contains synthetic propositions *a priori*; and from that assertion his good understanding would surely have saved him.

The solution of the above problem also includes the possibility of the pure use of reason in founding and developing all sciences that contain a theoretical cognition *a priori* of objects—that is, it includes the answer to the questions:

How is pure mathematics possible?

How is pure natural science possible?

Since these sciences are actually given, it is fitting to ask about them *how* they are possible; for that they must be possible is proved by their actuality.[5] As for *metaphysics*, however, its

5 KANT'S NOTE. Some may still doubt this last point in the case of pure natural science. But one need only look at the various propositions that occur at the beginning of physics proper (empirical physics)—such as those of the persistence of the same quantity of matter, of inertia, of the equality of action and reaction, and so on—and one will soon be convinced that they make up a *Physicam puram* (or *rationalem*) [a pure (or rational) physics]. It well deserves to be set up separately as a science of its own, in its whole extent, whether narrow or wide.

poor progress so far, and the fact that of no metaphysics yet expounded can it be said that it actually exists as far as its essential purpose is concerned, must leave everyone with good reason to doubt its possibility.

[41] But this *kind of cognition* too is in a certain sense to be regarded as given; and metaphysics is actual, if not as a science, then at least as a natural predisposition (*metaphysica naturalis* [natural metaphysics]). For human reason, without being moved by the mere vanity of knowing a great deal, presses on irresistibly, driven by its own need, to questions that cannot be answered by any use of reason in experience, or by principles borrowed from such use. And so there really has been some metaphysics in all human beings at all times, as soon as reason extends itself in them to speculation, and there always will be. Of this too, then, the question is: *How is metaphysics possible as a natural predisposition?* That is, how do the questions that pure reason raises for itself, and that it is driven by its own need to answer as well as it can, arise from the nature of universal human reason?

But in all attempts so far to answer these natural questions—for example, whether the world has a beginning or has existed from eternity, and so on—unavoidable contradictions have always been found. So we cannot rest content with the mere natural predisposition to metaphysics, that is, with the pure faculty of reason itself, from which some metaphysics or other (whatever it may be) always grows. Rather, it must be possible to arrive at certainty with it: either in the knowledge or in the ignorance of the objects—that is, either a decision about the objects of its questions, or a decision about reason's capability or incapability of judging anything with regard to them. It must be possible, then, either to extend our pure reason with confidence, or to set it determinate and secure limits. This last question, which flows from the universal problem above, would rightly be this: *How is metaphysics possible as a science?*

The critique of reason thus leads in the end necessarily to science. The dogmatic use of reason without critique, on the other

hand, leads to groundless assertions, to which equally plausible ones can be opposed, and hence to *skepticism*.

Nor can this science be of great, daunting length. For it has to do not with objects of reason, whose variety is infinite, but merely with itself: with problems that spring entirely from its own womb, and that are set before it not by the nature of things distinct from it but by its own [42] nature. Once it has first come to know its own capacity completely with regard to the objects that may come before it in experience, it must then become easy to determine, completely and securely, the scope and the boundaries of its use as attempted beyond all boundaries of experience.

We can and must therefore regard all attempts made so far to bring about a metaphysics *dogmatically* as if they had never happened. For whatever is analytic in one or another of them—namely, mere analysis of the concepts that inhabit our reason *a priori*—is not yet the end at all, but only a preparation for metaphysics proper, namely for extending its cognition *a priori* synthetically. And it is useless for this end, because it merely shows what is contained in these concepts, but not how we arrive at such concepts *a priori*, so as then to be able to determine their valid use with regard to the objects of all cognition in general. Nor does it take much self-denial to give up all these claims, since the undeniable contradictions of reason with itself—which are also unavoidable in the dogmatic procedure—have long since robbed every metaphysics so far of its standing. More steadfastness will be needed not to be deterred, by difficulty within and resistance without, from finally bringing to a thriving and fruitful growth, through a treatment entirely opposed to the one so far, a science indispensable to human reason—a science whose every shoot one may well cut down, but whose root cannot be torn out.

VII. THE IDEA OF A CRITIQUE OF PURE REASON

Kant defines transcendental cognition and presents the Critique as the propaedeutic to a system of pure reason.

From all this there now results the idea of a special science, which can be called the *Critique of Pure Reason*. For reason [43] is the faculty that supplies the *principles* of cognition *a priori*. Pure reason, therefore, is that which contains the principles for cognizing something absolutely *a priori*. An *organon* of pure reason would be the sum of those principles according to which all pure cognitions *a priori* can be acquired and actually brought about. The exhaustive application of such an organon would provide a system of pure reason.[6] But since this is asking a great deal, and it is still undecided whether any extension of our cognition is possible here at all, and in which cases, we can regard a science of the mere assessment of pure reason, of its sources and boundaries, as the *propaedeutic* to the system of pure reason. Such a science would have to be called not a *doctrine* but only a *critique* of pure reason. With regard to speculation, its use would really be only negative: it would serve not to extend our reason but only to purify it, and to keep it free of errors—which is already a great gain. I call all cognition *transcendental* that is occupied not so much with objects as with our way of cognizing objects, insofar as this is supposed to be possible *a priori*. A system of such concepts would be called *transcendental philosophy*. But this, again, is still too much for a beginning. For since such a science would have to contain completely both analytic cognition and synthetic cognition *a priori*, it is too wide in scope for our purpose. We may carry analysis only as far as is indispensably necessary in order to see into the principles of synthesis *a priori* in their whole scope, since these alone are our concern. This investigation, which we can properly call not a doctrine but only a transcendental critique—because its aim is not the exten-

6 *Organon* (Greek, "instrument"): the traditional name for Aristotle's logical works, hence a set of rules for acquiring knowledge.

sion of cognitions themselves but only their correction, [44] and it is meant to supply the touchstone of the worth or worthlessness of all cognitions *a priori*—is what we are now occupied with. Such a critique is accordingly a preparation, if possible, for an organon; and, if this should not succeed, at least for a canon of pure reason. According to such a canon, the complete system of the philosophy of pure reason—whether it consists in extending or merely in limiting its cognition—might one day be presented, both analytically and synthetically. For that this is possible—indeed, that such a system need not be very large in scope, so that we may hope to complete it entirely—can be judged in advance from this: here the object is not the nature of things, which is inexhaustible, but the understanding that judges about the nature of things, and this again only with regard to its cognition *a priori*. Its stock cannot remain hidden from us, since we need not look for it outside ourselves; and in all likelihood it is small enough to be taken up completely, judged as to its worth or worthlessness, and correctly appraised. Still less should one expect here a critique of the books and systems of pure reason; what is offered is a critique of the pure faculty of reason itself. Only when this critique is laid at the foundation does one have a sure touchstone for appraising the philosophical content of old and new works in this field. Otherwise the unqualified historian and judge assesses the groundless assertions of others by means of his own, which are just as groundless.

Transcendental philosophy is the idea of a science for which the *Critique of Pure Reason* is to sketch the whole plan architectonically, that is, from principles, with full guarantee of the completeness and security of all the pieces that make up this building. It is the system of all principles of pure reason. That this critique is not itself already called transcendental philosophy rests solely on this: to be a complete system, it would also have to contain an exhaustive analysis of the whole of human cognition *a priori*. Now our critique must, of course, also lay before our eyes a complete enumeration of all the root concepts that make up that pure cognition. [45] But it rightly refrains from

the exhaustive analysis of these concepts themselves, as well as from a complete review of those derived from them. This is partly because such analysis would not serve its purpose, since it does not involve the difficulty found in synthesis, for whose sake the whole critique really exists; and partly because it would run counter to the unity of the plan to take on responsibility for the completeness of such an analysis and derivation, from which, given its aim, it could after all be excused. This completeness of the analysis, as well as of the derivation from the concepts *a priori* still to be supplied, is in any case easy to fill in, once these concepts are first there as exhaustive principles of synthesis, and nothing is lacking with regard to this essential aim.

Everything that makes up transcendental philosophy therefore belongs to the critique of pure reason. It is the complete idea of transcendental philosophy, but not yet this science itself, because in analysis it goes only as far as is required for a complete assessment of synthetic cognition *a priori*.

The chief thing to keep in view in dividing such a science is that no concepts at all may enter it that contain anything empirical—in other words, that the cognition *a priori* be completely pure. Hence, although the supreme principles of morality and its fundamental concepts are cognitions *a priori*, they do not belong in transcendental philosophy. For although they do not themselves lay the concepts of pleasure and displeasure, of desires and inclinations, and so on—all of which are of empirical origin—at the foundation of their precepts, they must still necessarily bring them into the framing of the system of pure morality, in the concept of duty: as a hindrance to be overcome, or as an incentive that is not to be made a motive. Transcendental philosophy is therefore a philosophy of pure, merely speculative reason. For everything practical, insofar as it contains incentives, relates to feelings, which belong to empirical sources of cognition.

THE DIVISION OF THE WORK

The Critique has a doctrine of elements and a doctrine of method; cognition has two stems, sensibility and understanding.

[46] Now if one wants to divide this science from the general standpoint of a system as such, then the one we are now presenting must contain, first, a *doctrine of elements* and, second, a *doctrine of method* of pure reason. Each of these main parts would have its subdivisions, whose grounds, however, cannot yet be set out here. All that seems necessary by way of introduction or preliminary remark is this: there are two stems of human cognition, which perhaps spring from a common but to us unknown root—namely sensibility and understanding. Through the first, objects are *given* to us; through the second, they are *thought*. Now insofar as sensibility should contain representations *a priori* that make up the condition under which objects are given to us, it would belong to transcendental philosophy. The transcendental doctrine of the senses would have to belong to the first part of the science of elements, because the conditions under which alone the objects of human cognition are given precede those under which they are thought.

The Transcendental Aesthetic

Space and time are not things in themselves but the forms of our sensible intuition.

§ 1.

[49] In whatever way and by whatever means a cognition may relate to objects, that through which it relates to them immediately, and at which all thought as a means is directed, is *intuition*. But intuition takes place only insofar as the object is given to us; and this in turn is possible, for us humans at least, only through the object's affecting the mind in a certain way. The capacity (receptivity) to receive representations through the way in which we are affected by objects is called *sensibility*. By means of sensibility, therefore, objects are given to us, and it alone supplies us with *intuitions*; through the understanding, however, they are *thought*, and from the understanding arise *concepts*. All thought, however, whether straightforwardly (*directe*) or by a detour (*indirecte*), must ultimately relate, by means of certain marks, to intuitions, and therefore, in our case, to sensibility, because in no other way can an object be given to us.[1]

[50] The effect of an object on the capacity for representation, insofar as we are affected by it, is *sensation*. That intuition which relates to the object through sensation is called *empirical*. The undetermined object of an empirical intuition is called *appearance*.

In an appearance, I call that which corresponds to sensation its *matter*; but that which brings it about that the manifold of

appearance can be ordered in certain relations I call the *form* of appearance. Now that within which alone sensations can be ordered and placed in a certain form cannot itself be sensation in turn. So although the matter of all appearance is given to us only *a posteriori*, its form must lie ready for all appearances in the mind *a priori*, and can therefore be considered apart from all sensation.

I call all representations *pure* (in the transcendental sense) in which nothing belonging to sensation is encountered. Accordingly, the pure form of sensible intuitions in general, in which all the manifold of appearances is intuited in certain relations, will be encountered in the mind *a priori*. This pure form of sensibility will itself also be called *pure intuition*. Thus, if I separate from the representation of a body what the understanding thinks about it, such as substance, force, divisibility, etc., and likewise what belongs to sensation in it, such as impenetrability, hardness, color, etc., something is still left over for me from this empirical intuition, namely extension and shape. These belong to pure intuition, which takes place in the mind *a priori*, as a mere form of sensibility, even without an actual object of the senses or of sensation.

1 *Directe, indirecte* (Latin): directly, indirectly.

A science of all principles of sensibility *a priori* I call the *transcendental aesthetic*.[2] There must therefore be such a [51] science, constituting the first part of the transcendental doctrine of elements, in contrast to the science that contains the principles of pure thinking and is called transcendental logic.

In the transcendental aesthetic, then, we shall first *isolate* sensibility, by separating off everything the understanding thinks in it through its concepts, so that nothing but empirical intuition remains. Second, we shall further detach from this everything that belongs to sensation, so that nothing remains but pure intuition and the mere form of appearances, which is the only thing sensibility can supply *a priori*. In the course of this investigation it will be found that there are two pure forms of sensible intuition, as principles of cognition *a priori*, namely space and time; we shall now turn to the consideration of these.

§ 2. SPACE: METAPHYSICAL EXPOSITION

Space is not an empirical concept but a necessary, a priori, pure intuition, represented as an infinite given magnitude.

By means of outer sense (a property of our mind), we represent objects to ourselves as outside us, and all of them in [52] space. In space their shape, magnitude, and relation to one another are

2 KANT'S NOTE. The Germans are the only people who now use the word *aesthetics* to designate what others call the critique of taste. Underlying this usage is a failed hope, conceived by the excellent analyst Baumgarten, of bringing the critical assessment of the beautiful under principles of reason and raising its rules to the rank of a science. But this effort is futile. For the rules or criteria in question are, in their chief sources, merely empirical, and so can never serve as determinate laws *a priori* to which our judgment of taste would have to conform; rather, the judgment of taste is the real touchstone of the correctness of those rules. For this reason it is advisable either to let this name lapse again and reserve it for the doctrine that is true science (which would also bring us closer to the language and meaning of the ancients, among whom the division of cognition into *αἰσθητὰ καὶ νοητά* [things sensed and things thought] was very famous), or else to share the name with speculative philosophy and take aesthetics partly in the transcendental sense, partly in a psychological meaning.

TRANSLATOR'S NOTE. Alexander Gottlieb Baumgarten (1714–1762), German philosopher whose *Aesthetica* (1750–1758) gave the discipline its name; Kant lectured from his *Metaphysica*.

determined or determinable. Inner sense, by means of which the mind intuits itself or its inner state, does not give an intuition of the soul itself as an *object*. Yet it is a determinate form under which alone the intuition of the soul's inner state is possible, so that everything belonging to inner determinations is represented in relations of time. Time cannot be intuited outwardly, any more than space can be intuited as something in us. What, then, are space and time? Are they actual entities? Are they only determinations or even relations of things, yet such as would belong to things even in themselves, even if they were not intuited? Or are they such that they attach only to the form of intuition, and therefore to the subjective constitution of our mind, without which these predicates could not be ascribed to any thing at all? To inform ourselves on this, we shall first expound the concept of space. By *exposition* (*expositio*) I understand the distinct (even if not exhaustive) representation of what belongs to a concept; and the exposition is *metaphysical* when it contains what presents the concept as given *a priori*.[3]

1) Space is not an empirical concept that has been abstracted from outer experiences. For in order that certain sensations be referred to something outside me (that is, to something in a different place in space from the one I am in), and likewise in order that I be able to represent them as outside and alongside one another, and so not merely as different but as in different places, the representation of space must already lie at the basis. Accordingly, the representation of space cannot be borrowed through experience from the relations of outer appearance; rather, this outer experience is itself possible in the first place only through that representation.

2) Space is a necessary representation *a priori* that lies at the basis of all outer intuitions. One can never form a representation of there being no space, though one can quite well think that no objects are encountered in it. It [53] is therefore regarded as the condition of the possibility of appearances, not as a

3 *Expositio* (Latin): exposition, a setting out.

determination dependent on them, and it is a representation *a priori* that necessarily lies at the basis of outer appearances.

3) Space is not a discursive or, as is said, general concept of relations of things in general, but a pure intuition. For, first, one can represent only a single space, and when one speaks of many spaces, one understands by that only parts of one and the same unique space. Nor can these parts precede the single all-embracing space as, so to speak, its components (out of which it could be assembled); they can only be thought *in it*. Space is essentially single; the manifold in it, and hence also the general concept of spaces in general, rests solely on limitations. It follows that, with regard to space, an intuition *a priori* (one that is not empirical) lies at the basis of all concepts of it. So too all geometrical principles—for example, that in a triangle two sides together are greater than the third—are never derived from general concepts of line and triangle, but from intuition, and indeed *a priori*, with apodictic certainty.

4) Space is represented as an infinite *given* magnitude. Now one must indeed think every concept as a representation that is contained in an infinite multitude of different possible representations (as their common mark), and that therefore contains these *under itself*. But no concept, as such, can be thought as if it contained an infinite multitude of representations *within itself*. Yet space is thought in just this way (for all the parts of space, to infinity, exist simultaneously). Therefore the original representation of space is an *intuition a priori*, and not a *concept*.

§ 3. SPACE: TRANSCENDENTAL EXPOSITION

Only if space is a pure intuition in the subject can geometry be synthetic a priori cognition.

[54] By a *transcendental exposition* I understand the explanation of a concept as a principle from which the possibility of other synthetic cognitions *a priori* can be understood. For this purpose it is required 1) that such cognitions really do flow from the given

concept, and 2) that these cognitions are possible only on the presupposition of a given way of explaining this concept.

Geometry is a science that determines the properties of space synthetically and yet *a priori*. What, then, must the representation of space be for such a cognition of it to be possible? It must originally be intuition; for from a mere concept no propositions can be drawn that go beyond the concept, yet this is what happens in geometry (Introduction, V). But this intuition must be encountered in us *a priori*, that is, prior to all perception of an object; it must therefore be pure, not empirical, intuition. For geometrical propositions are all apodictic, that is, bound up with consciousness of their necessity—for example, that space has only three dimensions. But such propositions cannot be empirical judgments or judgments of experience, nor be inferred from them (Introduction, II).

How, then, can an outer intuition dwell in the mind that precedes the objects themselves, and in which the concept of these objects can be determined *a priori*? Obviously only insofar as it has its seat merely in the subject, as the subject's formal constitution for being affected by objects and thereby obtaining *immediate representation* of them, that is, *intuition*—and so only as the form of outer *sense* in general.

Therefore our explanation alone makes the *possibility of geometry*, as a synthetic cognition *a priori*, comprehensible. Any way of explaining that fails to provide this, even if it should seem to bear some resemblance to ours, can most surely be distinguished from it by this criterion.

CONCLUSIONS ABOUT SPACE

Space is only the form of outer sense: empirically real, but transcendentally ideal.

[55] a) Space represents no property at all of any things in themselves, nor represents them in their relation to one another; that is, it represents no determination of them that would attach to objects themselves and would remain even if one abstracted

from all subjective conditions of intuition. For neither absolute nor relative determinations can be intuited prior to the existence of the things to which they belong, and hence they cannot be intuited *a priori*.

b) Space is nothing other than the mere form of all appearances of outer senses, that is, the subjective condition of sensibility under which alone outer intuition is possible for us. Now since the receptivity of the subject for being affected by objects necessarily precedes all intuitions of these objects, it can be understood how the form of all appearances can be given in the mind prior to all actual perceptions, and so *a priori*; and how, as a pure intuition in which all objects must be determined, it can contain principles of their relations prior to all experience.

Accordingly, we can speak of space, of extended beings, and so on, only from the standpoint of a human being. If we depart from the subjective condition under which alone we can obtain outer intuition—namely, insofar as we may be affected by objects—then the representation of space means nothing at all. This predicate is ascribed to things only insofar as they appear to us, that is, are objects of sensibility. The constant form of this receptivity, which we call sensibility, is a necessary condition of all relations in which objects are intuited as outside us; and if one abstracts from these objects, it is a pure intuition, which bears the name space. Since we cannot make the special conditions of sensibility into conditions of the possibility of things, but only of their appearances, we can indeed say that space encompasses all things that may appear to us outwardly, but not all things in themselves, whether they are intuited or not, and by whatever subject. For we cannot judge at all whether the intuitions of other thinking beings [56] are bound to the same conditions that limit our intuition and that are universally valid for us. If we add the limitation of a judgment to the concept of the subject, the judgment then holds unconditionally. The proposition "All things are side by side in space" holds under the limitation that these things are taken as objects of our sensible intuition. If I here add the condition to the concept and say "All

things, as outer appearances, are side by side in space," then this rule holds universally and without limitation. Our expositions accordingly teach the *reality* (that is, the objective validity) of space with regard to everything that can come before us outwardly as an object, but at the same time the *ideality* of space with regard to things when they are considered in themselves through reason, that is, without taking account of the constitution of our sensibility. We therefore assert the *empirical reality* of space (with regard to all possible outer experience), though also its *transcendental ideality*, that is, that it is nothing as soon as we leave out the condition of the possibility of all experience and take it as something that lies at the basis of things in themselves.

Apart from space, however, there is no other subjective representation, related to something *outer*, that could be called objective *a priori*. For from none of them can synthetic propositions *a priori* be derived, as they can from intuition in space (§ 3). Strictly speaking, therefore, no ideality belongs to them at all, although they agree with the representation of space in belonging merely to the subjective constitution of a kind of sense—for example, of sight, hearing, and touch, through the sensations of colors, sounds, and warmth. But because these are mere sensations and not intuitions, they do not in themselves allow any object to be cognized, least of all *a priori*.

The aim of this remark is only to prevent anyone from taking it into his head to illustrate the ideality of space asserted here by examples that are far from adequate—examples such as colors, taste, etc., which are rightly regarded not as properties of things but merely as [57] alterations in our subject, alterations that can even differ from one person to another. For in this case what is originally itself only appearance, for example a rose, counts in the empirical sense as a thing in itself, which can nonetheless appear differently to every eye with regard to its color. The transcendental concept of appearances in space, by contrast, is a critical reminder: that nothing whatever that is intuited in space is a thing in itself, and that space is not a form of things that might belong to them in themselves. Rather, objects in them-

selves are not known to us at all, and what we call outer objects are nothing but mere representations of our sensibility, whose form is space, but whose true correlate, the thing in itself, is not and cannot be cognized through them at all—and about which, in experience, no one ever asks.

§ 4. TIME: METAPHYSICAL EXPOSITION

Time is not an empirical concept but a necessary, a priori, pure form of sensible intuition.

Time is 1) not an empirical concept that has been abstracted from any experience. For simultaneity or succession would not even come into perception if the representation of time did not lie at their basis *a priori*. Only on the presupposition of this representation can one represent to oneself that some things are at one and the same time (simultaneously) or at different times (successively).

2) Time is a necessary representation that lies at the basis of all intuitions. With regard to appearances in general, one cannot remove time itself, though one can quite well take appearances out of time. Time is therefore given *a priori*. In [58] it alone is all actuality of appearances possible. Appearances may all fall away, but time itself (as the universal condition of their possibility) cannot be removed.

3) On this necessity *a priori* is also grounded the possibility of apodictic principles concerning relations of time, or axioms of time in general. Time has only one dimension: different times are not simultaneous but successive (just as different spaces are not successive but simultaneous). These principles cannot be drawn from experience, for experience would give neither strict universality nor apodictic certainty. We could only say: this is what common perception teaches; not: this is how it must be. These principles hold as rules under which experiences are possible at all, and they instruct us prior to experience, not through it.

4) Time is not a discursive or, as it is called, general concept, but a pure form of sensible intuition. Different times are only parts of one and the same time. But the representation that can be given only through a single object is intuition. Moreover, the proposition that different times cannot be simultaneous could not be derived from a general concept. The proposition is synthetic and cannot arise from concepts alone. It is therefore immediately contained in the intuition and representation of time.

5) The infinity of time means nothing more than that every determinate magnitude of time is possible only through limitations of a single time lying at the basis. Hence the original representation *time* must be given as unlimited. But where the parts themselves, and every magnitude of an object, can be represented determinately only through limitation, there the whole representation cannot be given through concepts (for these contain only partial representations); rather, immediate intuition must lie at their basis.

§ 5. TIME: TRANSCENDENTAL EXPOSITION

Only time makes alteration and motion, and so the general doctrine of motion, comprehensible.

[59] For this I can refer to No. 3, where, for the sake of brevity, I placed what is properly transcendental among the articles of the metaphysical exposition. Here I add further that the concept of alteration, and with it the concept of motion (as alteration of place), is possible only through and in the representation of time. If this representation were not an (inner) intuition *a priori*, no concept, whatever it might be, could make comprehensible the possibility of an alteration, that is, of a combination of contradictorily opposed predicates in one and the same object (for example, the being of a thing in a place and the not-being of that same thing in the same place). Only in time can both contradictorily opposed determinations be encountered in one thing, namely *one after the other*. Our concept of time therefore

explains the possibility of as much synthetic cognition *a priori* as is set out by the general doctrine of motion, which is not a little fruitful.

§ 6. CONCLUSIONS ABOUT TIME

Time is the form of inner sense and the formal condition of all appearances whatever.

a) Time is not something that subsists on its own, or that attaches to things as an objective determination and would therefore remain if one abstracted from all subjective conditions of the intuition of them. For in the first case it would be something that was actual without an actual object. As for the second, time, as a determination or order attaching to things themselves, could not precede the objects as their condition, and could not be cognized and intuited *a priori* through synthetic propositions. But this latter is quite possible if time is nothing but the subjective condition under which all intuitions can take place in us. For then this form of inner intuition can be represented prior to the objects, and so *a priori*.

b) Time is nothing other than the form of inner sense, that is, of the intuiting of ourselves and of our inner state. For [60] time cannot be a determination of outer appearances: it belongs neither to a shape nor to a position, etc.; rather, it determines the relation of representations in our inner state. And precisely because this inner intuition yields no shape, we try to make up for this deficiency by analogies. We represent the sequence of time by a line proceeding to infinity, in which the manifold constitutes a series of only one dimension; and from the properties of this line we infer all the properties of time, with this one exception: that the parts of the line are simultaneous, whereas the parts of time are always successive. From this it is also evident that the representation of time is itself intuition, since all its relations can be expressed in an outer intuition.

c) Time is the formal condition *a priori* of all appearances whatever. Space, as the pure form of all outer intuition, is lim-

ited as a condition *a priori* merely to outer appearances. By contrast, all representations, whether or not they have outer things as their object, nonetheless belong in themselves, as determinations of the mind, to our inner state; and this inner state falls under the formal condition of inner intuition, and hence of time. So time is a condition *a priori* of all appearance whatever: it is the immediate condition of inner appearances (of our souls), and precisely thereby also, mediately, of outer appearances. If I can say *a priori* that all outer appearances are in space and are determined *a priori* according to the relations of space, then from the principle of inner sense I can say quite universally that all appearances whatever, that is, all objects of the senses, are in time and necessarily stand in relations of time.

If we abstract from our way of intuiting ourselves inwardly—and of taking up, by means of this intuition, all outer intuitions as well into our power of representation—and thus take objects as they may be in themselves, then time is nothing. It has objective validity only with regard to appearances, because these are already things that we take as *objects of our senses*. But it is no longer objective if one abstracts from the sensibility of our intuition, and hence from the kind of representation peculiar to us, and speaks of *things in general*. Time is therefore merely a subjective condition of our (human) intuition [61] (which is always sensible, that is, insofar as we are affected by objects), and in itself, apart from the subject, it is nothing. Nonetheless, with regard to all appearances, and hence to all things that can come before us in experience, time is necessarily objective. We cannot say that all things are in time, because in the concept of things in general we abstract from every kind of intuition of them, whereas intuition is the real condition under which time belongs in the representation of objects. But if the condition is added to the concept, and we say that all things as appearances (objects of sensible intuition) are in time, then the principle has its sound objective correctness and universality *a priori*.

Our assertions therefore teach the *empirical reality* of time, that is, its objective validity with regard to all objects that may

ever be given to our senses. And since our intuition is always sensible, no object can ever be given to us in experience that does not fall under the condition of time. On the other hand, we dispute time's every claim to absolute reality—the claim, that is, that it would attach to things absolutely, as a condition or property, even without regard to the form of our sensible intuition. Such properties, which belong to things in themselves, can never be given to us through the senses either. In this, then, consists the *transcendental ideality* of time: if one abstracts from the subjective conditions of sensible intuition, time is nothing at all, and cannot be counted among objects in themselves (apart from their relation to our intuition) either as subsisting or as inhering. Yet this ideality, like that of space, is not to be compared with the subreptions of sensations. For in that case one presupposes that the appearance itself, in which these predicates inhere, has objective reality; here, by contrast, such reality falls away entirely, except insofar as it is merely empirical, that is, regards the object itself merely as appearance. On this, see the remark above in the first section.[4]

§ 7. ELUCIDATION

Kant answers the objection that time must be real because alterations are real.

Against this theory, which grants time empirical reality but disputes its absolute and transcendental reality, I have heard discerning [62] men raise an objection so unanimously that I infer it must naturally occur to every reader unaccustomed to these reflections. It runs as follows. Alterations are actual (this is proved by the change of our own representations, even if one wanted to deny all outer appearances together with their alterations). Now alterations are possible only in time; therefore time is something actual. There is no difficulty in answering this. I grant the whole argument. Time is indeed something actual,

4 Subreption: a fallacy of passing off one thing as another; here, taking subjective sensations such as colors for properties of things.

namely the actual form of inner intuition. It therefore has subjective reality with regard to inner experience, that is, I really do have the representation of time and of my determinations in it. Time is therefore to be regarded as actual, not as an object, but as the way I represent myself as an object. But if I myself, or another being, could intuit me without this condition of sensibility, then the very same determinations that we now represent to ourselves as alterations would yield a cognition in which the representation of time, and hence also of alteration, would not occur at all. Its empirical reality therefore remains, as the condition of all our experiences. Only absolute reality cannot be granted to it, for the reasons given above. It is nothing but the form of our inner intuition.[5] If one takes away from it the special condition of our sensibility, the concept of time vanishes as well; time does not attach to objects themselves, but merely to the subject that intuits it.

But the reason why this objection is raised so unanimously—and indeed by those who nonetheless have nothing convincing to bring against the doctrine of the ideality of space—is this. They had no hope of demonstrating the absolute reality of space apodictically, because they were confronted by idealism, according to which the actuality of outer objects is incapable of strict proof. By contrast, the actuality of the object of our inner senses (myself and my state) is immediately clear through consciousness. Outer objects could be a mere illusion; but this object, in their opinion, is undeniably something actual. They did not consider, however, that both, though their actuality [63] as representations may not be disputed, nonetheless belong only to appearance. And appearance always has two sides: one in which the object is considered in itself (regardless of the way of intuiting it, though for that very reason its constitution always remains problematic); the other in which regard is paid to the

5 KANT'S NOTE. I can indeed say: my representations follow one another. But this only means that we are conscious of them as in a temporal sequence, that is, according to the form of inner sense. Time is not, on that account, something in itself, nor a determination attaching objectively to things.

form of the intuition of this object—a form that must be sought not in the object in itself but in the subject to which it appears, yet which really and necessarily belongs to the appearance of this object.

Time and space are therefore two sources of cognition from which various synthetic cognitions can be drawn *a priori*, as pure mathematics above all gives a splendid example with regard to cognitions of space and its relations. Taken together, they are pure forms of all sensible intuition, and thereby make synthetic propositions *a priori* possible. But precisely because they are merely conditions of sensibility, these sources of cognition *a priori* determine their own boundaries: namely, that they apply only to objects insofar as these are considered as appearances, and do not present things in themselves. Appearances alone are the field of their validity; if one goes beyond it, no further objective use of them takes place. This reality of space and time, moreover, leaves the certainty of cognition from experience untouched: for we are equally certain of it whether these forms necessarily attach to things in themselves or only to our intuition of these things. Those, on the other hand, who assert the absolute reality of space and time, whether they take them as subsisting or only as inhering, must be at odds with the principles of experience itself. For if they decide for the first (which is generally the side taken by the mathematical investigators of nature), they must assume two eternal and infinite self-subsisting non-entities (space and time), which exist (without there being anything actual) only in order to contain everything actual within themselves.[6] If they take the second side (to which some metaphysical students of nature belong), and space and time count for them as relations of appearances (alongside or after one another) abstracted from experience, though confusedly represented in this abstraction, then they must deny that the mathematical doctrines *a priori* are valid with regard to

6 Kant has in mind Newton and his followers, for whom space and time are absolute; the "metaphysical" party of the next paragraph is Gottfried Wilhelm Leibniz (1646–1716), German philosopher and mathematician, and his school.

actual things (for example, in space), or at least deny them apodictic certainty, since such certainty does not occur *a posteriori* at all. On this view the concepts *a priori* of [64] space and time are only creatures of the imagination, whose source must really be sought in experience: out of relations abstracted from experience, imagination has made something that contains what is general in them, but that cannot occur without the restrictions that nature has attached to them. The first party gains this much: they keep the field of appearances open for mathematical assertions. But they become greatly entangled by these very conditions when the understanding wants to go beyond this field. The second party does gain with regard to the latter point, namely that the representations of space and time do not get in their way when they want to judge of objects not as appearances but merely in relation to the understanding. But they can neither give any ground for the possibility of mathematical cognitions *a priori* (since they lack a true and objectively valid intuition *a priori*), nor bring the propositions of experience into necessary agreement with those assertions. Our theory of the true constitution of these two original forms of sensibility remedies both difficulties.

Finally, that the transcendental aesthetic can contain no more than these two elements, namely space and time, is clear from the fact that all other concepts belonging to sensibility, even that of motion, which unites both, presuppose something empirical. For motion presupposes the perception of something movable. In space, considered in itself, however, there is nothing movable; hence the movable must be something *that is found in space only through experience*, and therefore an empirical datum. In the same way, the transcendental aesthetic cannot count the concept of alteration among its data *a priori*: for time itself does not alter, but something that is in time does. For this, then, the perception of some existence and of the succession of its determinations—hence experience—is required.

§ 8. GENERAL REMARKS ON THE TRANSCENDENTAL AESTHETIC

Kant restates his view: we cognize only appearances, and the difference from things in themselves is not merely logical.

[65] I. First, it will be necessary to explain as clearly as possible what our view is regarding the fundamental constitution of sensible cognition in general, in order to prevent any misinterpretation of it.

What we have meant to say, then, is this. All our intuition is nothing but the representation of appearance. The things we intuit are not in themselves what we intuit them as being, nor are their relations in themselves so constituted as they appear to us. And if we were to remove our subject, or even just the subjective constitution of the senses in general, then the whole constitution and all the relations of objects in space and time, and indeed space and time themselves, would vanish; as appearances they cannot exist in themselves, but only in us. What may be the case with objects in themselves, apart from all this receptivity of our sensibility, remains entirely unknown to us. We know nothing but our way of perceiving them, which is peculiar to us and which need not belong to every being, though it must belong to every human being. With this alone are we concerned. Space and time are its pure forms; sensation in general is its matter. The former alone we can cognize *a priori*, that is, prior to all actual perception, and it is therefore called pure intuition; the latter, however, is what in our cognition makes it be called cognition *a posteriori*, that is, empirical intuition. The former attach to our sensibility with absolute necessity, whatever kind our sensations may be; the latter can be very different. Even if we could bring this intuition of ours to the highest degree of distinctness, we would not thereby come any nearer to the constitution of objects in themselves. For in any case we would still cognize completely only our own way of intuiting, that is, our sensibility, and this always only under the [66] conditions of space and time originally attaching to the sub-

ject. What objects may be in themselves would never become known to us, even through the most enlightened cognition of their appearance, which alone is given to us.

To say, therefore, that our whole sensibility is nothing but the confused representation of things, containing solely what belongs to them in themselves, but only as a heap of marks and partial representations that we do not consciously separate out, is to falsify the concept of sensibility and of appearance, rendering the whole doctrine of them useless and empty. The difference between an indistinct and a distinct representation is merely logical and does not concern the content. Without doubt the concept of *right* that sound understanding employs contains exactly what the subtlest speculation can develop from it; it is only that in common and practical use one is not conscious of these manifold representations in this thought. One cannot therefore say that the common concept is sensible and contains a mere appearance. For right cannot appear at all; its concept lies in the understanding and represents a constitution (the moral one) of actions that belongs to them in themselves. The representation of a body in intuition, on the other hand, contains nothing at all that could belong to an object in itself, but merely the appearance of something and the way we are affected by it. This receptivity of our capacity for cognition is called sensibility, and it remains worlds apart from the cognition of the object in itself, even if one were to see through the appearance to its very bottom.

The Leibnizian-Wolffian philosophy has therefore directed all investigations into the nature and origin of our cognitions to an entirely wrong point of view. For it regarded the difference between sensibility and the intellectual as merely logical, whereas this difference is plainly transcendental and concerns not merely the form of distinctness or indistinctness, but the origin and content of cognitions. Through sensibility we cognize the constitution of things in themselves not merely indistinctly but not at all; and as soon as we take away our subjective constitution, the represented object, with the properties that sensible

intuition ascribed to it, is nowhere to be found, nor [67] can it be found, since it is precisely this subjective constitution that determines its form as appearance.[7]

We do, of course, ordinarily distinguish within appearances what attaches essentially to their intuition and holds for every human sense in general from what belongs to it only contingently, being valid not for the relation to sensibility in general but only for a particular position or organization of this or that sense. And then the first cognition is said to represent the object in itself, the second only its appearance. But this distinction is merely empirical. If one stops there (as generally happens) and does not in turn regard that empirical intuition (as ought to happen) as mere appearance, in which nothing at all pertaining to any thing in itself is to be found, then our transcendental distinction is lost. We then believe after all that we cognize things in themselves, even though everywhere (in the sensible world), even in the most profound investigation of its objects, we have to do with nothing but appearances. Thus we will indeed call the rainbow a mere appearance in a sunshower, and the rain the thing in itself. And this is correct, provided we understand the latter concept merely physically: as that which, in general experience, under all its different positions relative to the senses, is nonetheless determined in intuition thus and not otherwise. But if we take this empirical element in general and ask, without concerning ourselves with its agreement with every human sense, whether it too represents an object in itself (not the raindrops, for as appearances these are already empirical objects), then the question of the relation of the representation to the object is transcendental. And not only are these drops mere appearances; even their round shape, indeed even the space in which they fall, are nothing in themselves, but mere modifications or foundations of our sensible intuition. The transcendental object, however, remains unknown to us.

The second important concern of our transcendental aesthetic is that it should not merely win some favor as a plausible

hypothesis, but be as certain and indubitable as can ever be demanded of a theory meant to serve as an organon. To make this certainty fully evident, we shall choose a case in which [68] its validity can become obvious, and which can serve to shed more light on what was set out in § 3.

Suppose, then, that space and time were objective in themselves and conditions of the possibility of things in themselves. Then it turns out, first, that a great number of apodictic and synthetic propositions *a priori* occur concerning both, especially concerning space, which we shall therefore chiefly examine here as our example. Since the propositions of geometry are cognized synthetically *a priori* and with apodictic certainty, I ask: where do you get such propositions, and on what does our understanding rely in order to arrive at such absolutely necessary and universally valid truths? There is no other way than through concepts or through intuitions, and both of these as given either *a priori* or *a posteriori*. The latter—namely empirical concepts, together with what they are grounded on, empirical intuition—can yield no synthetic proposition except one that is itself merely empirical, that is, a proposition of experience. Such a proposition can therefore never contain necessity and absolute universality, which are nonetheless the characteristic mark of all propositions of geometry. As for the first and only means—namely, arriving at such cognitions through mere concepts or through intuitions *a priori*—it is clear that from mere concepts no synthetic cognition at all can be obtained, but only analytic cognition. Just take the proposition that two straight lines can enclose no space, and hence that no figure is possible with them, and try to derive it from the concept of straight lines and the number two. Or take the proposition that a figure is possible with three straight lines, and try in the same way to derive it merely from these concepts. All your efforts are in vain, and you find yourselves compelled to take refuge in intuition, as geometry always does. You therefore give yourselves an object in

7 The philosophy of Leibniz as systematized by Wolff, which dominated German university philosophy in Kant's time.

intuition. But of what kind is this intuition: is it a pure intuition *a priori* or an empirical one? If it were the latter, no universally valid proposition could ever come of it, still less an apodictic one; for experience can never supply such propositions. You must therefore give yourselves your object *a priori* in intuition, and ground your synthetic proposition on it. Now suppose there were not in you a faculty of intuiting *a priori*; suppose this subjective [69] condition, as regards its form, were not at the same time the universal condition *a priori* under which alone the object of this (outer) intuition is itself possible; suppose the object (the triangle) were something in itself, without relation to your subject. How then could you say that what necessarily lies in your subjective conditions for constructing a triangle must also necessarily belong to the triangle in itself? For you could not add anything new (the figure) to your concepts (of three lines) that would therefore have to be encountered necessarily in the object, since the object is given prior to your cognition and not through it. If, therefore, space (and time as well) were not a mere form of your intuition, containing conditions *a priori* under which alone things can be outer objects for you—objects that are nothing in themselves without these subjective conditions—then you could settle absolutely nothing *a priori* and synthetically about outer objects. It is therefore indubitably certain, and not merely possible or even probable, that space and time, as the necessary conditions of all (outer and inner) experience, are merely subjective conditions of all our intuition. In relation to these conditions, all objects are therefore mere appearances, and not things given on their own in this way. For this reason, too, much can be said *a priori* about the form of these appearances, but never the least thing about the thing in itself that may lie at their basis.

INNER SENSE AND SELF-AFFECTION

Outer and inner sense give only relations, so the mind intuits itself only as it appears to itself.

II. In confirmation of this theory of the ideality of outer as well as inner sense, and hence of all objects of the senses as mere appearances, the following observation can serve especially well. Everything in our cognition that belongs to intuition (excepting, then, the feeling of pleasure and displeasure and the will, which are not cognitions at all) contains nothing but mere relations: of places in an intuition (extension), of alteration of places (motion), and of laws according to which this alteration is determined (moving forces). But what is present in the place, or what it brings about in the things themselves beyond the alteration of place, is not thereby given. Now a thing in itself is surely not cognized through mere relations. We may therefore well judge that since nothing but mere representations of relations is given to us through outer sense, [70] this sense too can contain in its representation only the relation of an object to the subject, and not the inner nature that belongs to the object in itself. The same holds for inner intuition. Not only do the representations of the *outer senses* make up the real material with which we furnish our mind; but time, in which we place these representations, which itself precedes our consciousness of them in experience and lies at the basis as the formal condition of the way we place them in the mind, already contains relations of succession, of simultaneity, and of what is simultaneous with succession (the persistent). Now that which, as representation, can precede any act of thinking anything is intuition; and if it contains nothing but relations, it is the form of intuition. Since this form represents nothing except insofar as something is placed in the mind, it can be nothing other than the way in which the mind is affected through its own activity, namely this placing of its representation, and hence by itself: that is, it is an inner sense as regards its form. Everything that is represented

through a sense is to that extent always appearance. Hence either an inner sense would have to be denied altogether, or else the subject that is its object could be represented through it only as appearance, not as it would judge of itself if its intuition were mere self-activity, that is, intellectual. The whole difficulty here rests only on how a subject can intuit itself inwardly; but this difficulty is common to every theory. Consciousness of oneself (apperception) is the simple representation of the I; and if through this alone all the manifold in the subject were given *self-actively*, then inner intuition would be intellectual. In human beings this consciousness requires inner perception of the manifold that is previously given in the subject; and the way in which this manifold is given in the mind without spontaneity must, on account of this difference, be called sensibility. If the faculty of becoming conscious of oneself is to seek out (apprehend) what lies in the mind, it must affect the mind, and only in this way can it produce an intuition of itself. But the form of this intuition, which lies previously at the basis in the mind, determines, in the representation of time, the way in which the manifold is together in the mind. The mind then intuits itself not as it would represent itself immediately and self-actively, [71] but according to the way it is affected from within—consequently as it appears to itself, not as it is.

APPEARANCE IS NOT ILLUSION

Calling things appearances does not make them mere illusion; treating space and time as real in themselves would.

III. When I say that in space and time both the intuition of outer objects and the mind's intuition of itself represent each as it affects our senses, that is, as it *appears*, this does not mean that these objects would be a mere *illusion*. For in appearance the objects, and even the properties we ascribe to them, are always regarded as something actually given. It is only that, insofar as this property depends solely on the subject's way of intuiting in the relation of the given object to it, this object *as appearance* is

distinguished from itself as object *in itself*. Thus I do not say that bodies merely *seem* to be outside me, or that my soul only *seems* to be given in my self-consciousness, when I assert that the quality of space and time—in conformity with which, as the condition of their existence, I posit both—lies in my way of intuiting and not in these objects in themselves. It would be my own fault if I made mere illusion out of what I ought to count as appearance.[8] But this does not happen on our principle of the ideality of all our sensible intuitions. On the contrary, if one ascribes *objective reality* to those forms of representation, one cannot avoid everything's being thereby transformed into mere *illusion*. For suppose one regards space and time as properties that, as regards their possibility, would have to be found in things in themselves, and reflects on the absurdities in which one then becomes entangled: two infinite things, which are neither substances nor [72] anything actually inhering in substances, must nonetheless be something existing, indeed the necessary condition of the existence of all things, and would remain even if all existing things were removed. Then one can hardly blame the good *Berkeley* for degrading bodies to mere illusion. Indeed, even our own existence, if made dependent in this way on the self-subsisting reality of a non-entity such as time, would have

8 KANT'S NOTE. The predicates of appearance can be ascribed to the object itself in relation to our sense—for example, the red color or the scent to the rose. But illusion can never be ascribed as a predicate to the object, precisely because it ascribes to the object *on its own* what belongs to it only in relation to the senses, or to the subject in general—for example, the two handles that were at first ascribed to Saturn. What is not to be found in the object in itself at all, but is always to be found in its relation to the subject and is inseparable from the subject's representation of it, is appearance. And so the predicates of space and time are rightly ascribed to objects of the senses as such, and in this there is no illusion. By contrast, if I ascribe redness to the rose *in itself*, handles to Saturn, or extension to all outer objects *in themselves*, without looking to a determinate relation of these objects to the subject and restricting my judgment to it, then and only then does illusion arise.

TRANSLATOR'S NOTE. Early telescopes, beginning with Galileo's in 1610, showed Saturn's rings as two "handles" or "ears"; Christiaan Huygens identified them as a ring in 1655–1659.

to be transformed along with it into sheer illusion—an absurdity of which no one has yet been guilty.[9]

INTUITION IN NATURAL THEOLOGY

Only an original, intellectual intuition could be free of space and time; ours is derived and sensible.

IV. In natural theology, where one thinks of an object that not only cannot be an object of intuition for us at all, but cannot be an object of sensible intuition even to itself, one takes great care to remove the conditions of time and space from all its intuition (for all its cognition must be intuition, and not *thinking*, which always shows limits). But with what right can one do this, if one has previously made space and time into forms of things in themselves—forms, indeed, that as conditions of the existence of things *a priori* would remain even if the things themselves had been removed? For as conditions of all existence in general they would also have to be conditions of the existence of God. If one does not want to make them objective forms of all things, nothing remains but to make them subjective forms of our outer as well as inner way of intuiting. This way of intuiting is called sensible because it is *not original*—that is, not such that through it the very existence of the object of intuition is given (a kind of intuition that, so far as we can see, can belong only to the original being). Instead it is dependent on the existence of the object, and so is possible only through the subject's capacity for representation being affected by that object.

Nor is it necessary for us to limit the way of intuiting in space and time to the sensibility of human beings. It may be that every finite thinking being must necessarily agree with human beings in this respect (though we cannot decide this). Yet even with this universal validity it does not cease to be sensibility, precisely because it is derived (*intuitus derivativus*), not original (*intuitus originarius*), and hence is not intellectual intuition. For the

9 George Berkeley (1685–1753), Irish philosopher and bishop, who held that bodies exist only as ideas in perceiving minds.

reason just given, intellectual intuition seems to belong only to the original being, and never to a being that is dependent both in its existence and in its intuition (an intuition that determines its [73] existence in relation to given objects). This last remark, however, must be counted only as an illustration of our aesthetic theory, not as a ground of proof.[10]

CONCLUSION OF THE TRANSCENDENTAL AESTHETIC

The pure intuitions of space and time partly answer how synthetic judgments a priori are possible.

Here, then, we have one of the pieces required for solving the general problem of transcendental philosophy—*how are synthetic propositions* a priori *possible?*—namely, pure intuitions *a priori*, space and time. In these, when in a judgment *a priori* we want to go beyond the given concept, we encounter what can be discovered *a priori* not in the concept but in the intuition corresponding to it, and can be combined with the concept synthetically. For this very reason, however, such judgments never reach further than objects of the senses, and can hold only for objects of possible experience.

10 *Intuitus derivativus, intuitus originarius* (Latin): derived intuition, original intuition.

Transcendental Logic: the clue to the categories

From the forms of judgment Kant derives the table of the twelve categories.

EINLEITUNG. IDEE EINER TRANSSCENDENTALEN LOGIK. I VON DER LOGIK ÜBERHAUPT.

[74] Our cognition arises from two fundamental sources of the mind. The first is the capacity to receive representations (the receptivity of impressions); the second is the faculty of cognizing an object through these representations (the spontaneity of concepts). Through the first an object is *given* to us; through the second it is *thought* in relation to that representation (as a mere determination of the mind). Intuition and concepts, therefore, make up the elements of all our cognition, so that neither concepts without an intuition that in some way corresponds to them, nor intuition without concepts, can yield a cognition. Both are either pure or empirical. They are *empirical* when they contain sensation (which presupposes the actual presence of the object); *pure* when no sensation is mixed into the representation. Sensation may be called the matter of sensible [75] cognition. Pure intuition, accordingly, contains only the form under which something is intuited, and a pure concept contains only the form of the thinking of an object in general. Only pure intuitions or concepts are possible *a priori*; empirical ones are possible only *a posteriori*.

If we call the *receptivity* of our mind—its capacity to receive representations insofar as it is affected in some way—*sensibility*,

then the faculty of producing representations itself, or the *spontaneity* of cognition, is the *understanding*. It lies in our nature that *intuition* can never be other than *sensible*: that is, it contains only the way in which we are affected by objects. The faculty of *thinking* the object of sensible intuition, by contrast, is the *understanding*. Neither of these properties is to be preferred to the other. Without sensibility no object would be given to us, and without understanding none would be thought. Thoughts without content are empty; intuitions without concepts are blind. It is therefore just as necessary to make one's concepts sensible (that is, to add the object to them in intuition) as it is to make one's intuitions understandable (that is, to bring them under concepts). Nor can these two faculties or capacities exchange their functions. The understanding can intuit nothing, and the senses can think nothing. Only from their union can cognition arise. But this is no reason to mix up their respective contributions; on the contrary, there is great reason to separate each carefully from the other and to distinguish them. We therefore distinguish the science of the rules of sensibility in general, that is, aesthetic, from the science of the rules of the understanding in general, that is, logic.

Logic, in turn, can be undertaken with a twofold aim: either as the logic of the general use of the understanding, or as the logic of its particular use. The first contains the absolutely necessary rules of thinking, without which there is no use of the understanding at all. It therefore concerns the understanding without regard to the differences among the objects to which it may be directed. The logic of the particular use of the understanding contains the rules for thinking correctly about a certain kind of objects. The first may be called elementary logic; the second, the organon of this or that science. In the schools the latter is usually sent ahead of the sciences as their propaedeutic. Yet in the course of human reason it is the very last thing reason [76] reaches, only once the science is long since complete and needs only the finishing touches for its correction and perfection. For one must already know the objects to a rather

high degree before one can state the rules by which a science of them may be brought about.

General logic, now, is either pure or applied logic. In pure logic we abstract from all the empirical conditions under which our understanding is exercised: for example, from the influence of the senses, the play of imagination, the laws of memory, the power of habit, inclination, and so on, and hence also from the sources of prejudice—indeed, from all causes whatever from which certain cognitions may arise in us or be foisted on us. We abstract from these because they concern the understanding only under certain circumstances of its application, and experience is required in order to know them. A *general* but *pure logic*, then, deals with nothing but principles *a priori*, and is a *canon of the understanding* and of reason—but only with respect to what is formal in their use, whatever the content may be (empirical or transcendental). A *general logic* is called *applied*, on the other hand, when it is directed to the rules for using the understanding under the subjective empirical conditions that psychology teaches us. It therefore has empirical principles, although it is general insofar as it concerns the use of the understanding without distinction of objects. For this reason it is neither a canon of the understanding in general nor an organon of particular sciences, but merely a cathartic of the common understanding.[1]

In general logic, therefore, the part that is to constitute the pure doctrine of reason must be entirely separated from the part that constitutes applied (though still general) logic. Strictly speaking, only the former is science, though brief and dry, as the scholastically correct presentation of a doctrine of the elements of the understanding requires. In this science, then, logicians must always keep two rules in view.

1) As general logic, it abstracts from all content of the cognition of the understanding and from the differences among its

1 Canon: a set of rules for judging the correct use of a faculty. Kathartikon (Greek, "purgative"): a means of cleansing the understanding of errors.

objects, and has to do with nothing but the mere form of thinking.

2) As pure logic, it has no empirical principles. Consequently it draws nothing (as people have sometimes persuaded themselves) from psychology, which [77] therefore has no influence whatever on the canon of the understanding. It is a demonstrated doctrine, and everything in it must be completely certain *a priori*.

What I call applied logic (against the usual meaning of the word, according to which it is supposed to contain certain exercises for which pure logic supplies the rule) is a representation of the understanding and of the rules of its necessary use *in concreto*: namely, under the contingent conditions of the subject, which can hinder or promote this use and which are all given only empirically. It deals with attention, its obstacles and consequences, the origin of error, the state of doubt, of scruple, of conviction, and so[2] on. General and pure logic is related to it as pure morals is related to the doctrine of virtue proper. Pure morals contains merely the necessary moral laws of a free will in general. The doctrine of virtue weighs these laws against the hindrances of the feelings, inclinations and passions to which human beings are more or less subject; and it can never yield a true and demonstrated science, because, just like applied logic, it needs empirical and psychological principles.

II. TRANSCENDENTAL LOGIC

A logic of pure thinking would concern the origin of cognitions that relate to objects a priori.

General logic, as we have shown, abstracts from all content of cognition, that is, from all relation of cognition to the object, and considers only the logical form in the relation of cognitions to one another, that is, the form of thinking in general. But since there are pure as well as empirical intuitions (as the transcendental aesthetic shows), there might well also be found a distinc-

2 *In concreto* (Latin): in the concrete, that is, as actually applied.

tion between the pure and the empirical thinking of objects. In that case there would be a logic in which one did not abstract from all content of cognition. For a logic that contained merely the rules of the pure thinking of an object would exclude all those cognitions whose content was empirical. It would also concern the origin of our cognitions of objects, insofar as that origin cannot be ascribed to the objects. General logic, by contrast, has nothing to do with this origin of cognition. It considers representations—whether they are originally *a priori* in ourselves [78] or only empirically given—merely according to the laws by which the understanding uses them in relation to one another when it thinks. It therefore deals only with the form of the understanding that can be conferred on representations, wherever else they may have come from.

And here I make a remark that extends its influence over all the reflections that follow and must be kept well in view. Not every cognition *a priori* is to be called transcendental, but only that by which we cognize that and how certain representations (intuitions or concepts) are applied, or are possible, purely *a priori*—transcendental, that is, as concerning the possibility of cognition or its use *a priori*. Hence neither space nor any geometrical determination of it *a priori* is a transcendental representation. Only the cognition that these representations are not of empirical origin at all, and the possibility that they can nevertheless relate *a priori* to objects of experience, can be called transcendental. Likewise, the use of space for objects in general would also be transcendental; but if it is restricted solely to objects of the senses, it is called empirical. The distinction between the transcendental and the empirical therefore belongs only to the critique of cognitions and does not concern their relation to their object.

We expect, then, that there may perhaps be concepts that relate *a priori* to objects, not as pure or sensible intuitions, but merely as acts of pure thinking—concepts, therefore, but of neither empirical nor aesthetic origin. In that expectation we form in advance the idea of a science of pure understanding and

of pure cognition by reason, through which we think objects completely *a priori*. Such a science, which would determine the origin, the scope and the objective validity of such cognitions, would have to be called *transcendental* logic. For it deals only with the laws of the understanding and of reason, but solely insofar as they are related to objects *a priori*—not, like general logic, to empirical and pure cognitions of reason without distinction.

III. GENERAL LOGIC: ANALYTIC AND DIALECTIC

Logic gives only a negative criterion of truth; used as an organon it becomes a logic of illusion.

79 The old and famous question with which logicians were supposed to be driven into a corner is this: *What is truth?* The aim was to bring them to the point where they must either let themselves be caught in a miserable circle, or else confess their ignorance and so the vanity of their whole art. The nominal definition of truth—namely, that it is the agreement of cognition with its object—is here granted and presupposed. But what one demands to know is the universal and certain criterion of the truth of any cognition whatever.[3]

To know what one should reasonably ask is already a great and necessary proof of shrewdness or insight. For if the question is absurd in itself and demands answers that are not needed, then besides shaming the one who raises it, it sometimes has the further drawback of leading the incautious listener into absurd answers. It then presents the ridiculous spectacle of one person (as the ancients said) milking a he-goat while the other holds a sieve under it.[4]

If truth consists in the agreement of a cognition with its object, then this object must thereby be distinguished from oth-

3 Kant's word is *Diallele*, the logicians' term for a vicious circle in proof or definition.

4 The saying is told of the Cynic philosopher Demonax (2nd century AD) in Lucian's *Demonax*.

ers. For a cognition is false if it does not agree with the object to which it is related, even though it contains something that might well hold of other objects. Now, a universal criterion of truth would be one that was valid of all cognitions without distinction of their objects. But it is clear that such a criterion abstracts from all content of cognition (its relation to its object), while truth concerns precisely this content. It is therefore quite impossible and absurd to ask for a mark of the truth of this content of cognitions, and so a sufficient and yet at the same time universal criterion of truth cannot possibly be given. Since we have already called the content of a cognition its matter, we must say: no universal criterion of the truth of cognition with respect to its matter can be demanded, because such a criterion is self-contradictory.

[80] But as regards cognition with respect to its mere form (setting aside all content), it is equally clear that a logic, insofar as it sets out the universal and necessary rules of the understanding, must present criteria of truth in precisely these rules. For whatever contradicts them is false, since in it the understanding contradicts its own universal rules of thinking, and hence itself. These criteria, however, concern only the form of truth, that is, of thinking in general. To that extent they are quite correct, but they are not sufficient. For although a cognition may be in complete accord with logical form, that is, may not contradict itself, it can still always contradict the object. The merely logical criterion of truth—namely, the agreement of a cognition with the universal and formal laws of the understanding and of reason—is therefore indeed the *conditio sine qua non*, and hence the negative condition, of all truth. But logic can go no further. Error that concerns not the form but the content logic cannot detect by any touchstone.[5]

General logic, now, resolves the whole formal business of the understanding and of reason into its elements, and presents these as principles of all logical assessment of our cognition.

5 *Conditio sine qua non* (Latin): a condition without which not; a necessary condition.

This part of logic may therefore be called analytic. For this very reason it is at least the negative touchstone of truth: all cognition must first be examined and evaluated by these rules with respect to its form, before it is itself investigated with respect to its content, to settle whether it contains positive truth with regard to the object. But the mere form of cognition, however well it may agree with logical laws, is far from sufficient to establish material (objective) truth for cognition. So no one can venture to judge about objects and to assert anything by means of logic alone, without first having gathered well-founded information about them outside logic. Only then may one try to use this information and connect it into a coherent whole according to logical laws—or better still, merely to test it by them. Nevertheless, there is something so seductive in possessing so specious an art—one that gives all our cognitions the form of the understanding, however empty and poor we may still be as regards their content—that this general logic, which is merely a *canon* for assessment, has been used as if it were an *organon* for actually producing, or at least [81] for producing the deception of, objective assertions, and has thereby in fact been misused. General logic, as a supposed organon, is called *dialectic*.

However different the meaning in which the ancients used this name of a science or an art, one can safely gather from their actual use of it that for them it was nothing other than the *logic of illusion*: a sophistical art of giving one's ignorance, and even one's deliberate deceptions, the coat of truth, by imitating the method of thoroughness that logic in general prescribes and by using its topics to dress up every empty pretense. Now, it may be noted as a sure and useful warning that general logic, *considered as an organon*, is always a logic of illusion, that is, dialectical.[6] For it teaches us nothing whatever about the content of cognition, but only the formal conditions of agreement with the understanding, which are otherwise completely indifferent with regard to objects. So the presumption of using it as a tool

6 Topics (*Topik*): the doctrine of the "places" (Greek *topoi*) where arguments may be found, as in Aristotle's *Topics*.

(organon) for spreading and extending one's knowledge, at least by pretense, must come down to nothing but idle chatter: asserting with some illusion of truth whatever one likes, or attacking it at will.

Such instruction is in no way befitting the dignity of philosophy. For this reason it has been preferred to count this name, dialectic, as part of logic as a *critique of dialectical illusion*, and it is as such that we too want it understood here.

IV. TRANSCENDENTAL ANALYTIC AND DIALECTIC

Transcendental logic divides into a logic of truth and a critique of illusion beyond experience.

In a transcendental logic we isolate the understanding (as we isolated sensibility above in the transcendental aesthetic), and we lift out from our cognition only that part of thinking which has its origin solely in the understanding. But the use of this pure cognition rests on the following as its condition: that objects are given to us [82] in intuition, to which it can be applied. For without intuition all our cognition lacks objects, and then remains completely empty. That part of transcendental logic, then, which sets out the elements of the pure cognition of the understanding, and the principles without which no object can be thought at all, is transcendental analytic, and at the same time a logic of truth. For no cognition can contradict it without at once losing all content, that is, all relation to any object, and hence all truth. But it is very enticing and seductive to use these pure cognitions and principles of the understanding by themselves, and even beyond the boundaries of experience—though experience alone can furnish us with the matter (objects) to which those pure concepts of the understanding can be applied. So the understanding runs the risk of making, through empty sophistical reasoning, a material use of the merely formal principles of pure understanding, and of judging without distinction about objects that are not given to us, and perhaps cannot be given in any way at all. Properly, then, it should be only a canon

for assessing the empirical use of the understanding. It is misused when it is allowed to count as the organon of a universal and unrestricted use, and when one ventures with the pure understanding alone to judge, assert and decide synthetically about objects in general. The use of the pure understanding would then be dialectical. The second part of transcendental logic must therefore be a critique of this dialectical illusion, and is called transcendental dialectic. It is not an art of producing such illusion dogmatically (an art, unfortunately very current, of all manner of metaphysical conjuring tricks). It is a critique of the understanding and of reason with regard to their hyperphysical use, meant to expose the false illusion of their groundless pretensions, and to reduce their claims to discovery and extension—which they suppose they can attain merely through transcendental principles—to the mere assessment of the pure understanding and its protection against sophistical deception.

DIVISION ONE: TRANSCENDENTAL ANALYTIC

The analytic dissects all cognition a priori into the elements of pure understanding.

[83] This analytic is the dissection of our entire cognition *a priori* into the elements of the pure cognition of the understanding. The following points are what matter here. 1. That the concepts be pure and not empirical concepts. 2. That they belong not to intuition and sensibility, but to thinking and the understanding. 3. That they be elementary concepts, and be carefully distinguished from derived concepts or from those composed of them. 4. That their table be complete, and that they entirely fill the whole field of the pure understanding. Now, this completeness of a science cannot be reliably assumed on the basis of a rough estimate of an aggregate put together merely by trial. It is therefore possible only by means of an *idea of the whole* of the understanding's cognition *a priori*, and through the division, determined by that idea, of the concepts that make up this cognition—hence only through their *connection in a system*. The pure

understanding separates itself completely not only from everything empirical, but even from all sensibility. It is therefore a unity that subsists on its own, is sufficient unto itself, and cannot be augmented by any additions coming from outside. Hence the sum of its cognition will constitute a system to be comprehended and determined under one idea. The completeness and articulation of this system can at the same time serve as a touchstone of the correctness and genuineness of every piece of cognition that fits into it. This whole part of transcendental logic, however, consists of two *books*: one contains the *concepts*, the other the *principles*, of pure understanding.

BOOK ONE: THE ANALYTIC OF CONCEPTS

Kant will analyze the faculty of understanding itself to find the concepts a priori born there.

By the analytic of concepts I do not mean their analysis, or the usual procedure in philosophical investigations of [84] dissecting the concepts that present themselves according to their content and bringing them to distinctness. I mean the still rarely attempted *dissection of the faculty of understanding* itself, in order to explore the possibility of concepts *a priori* by seeking them in the understanding alone, as their birthplace, and by analyzing its pure use in general. For this is the proper business of a transcendental philosophy; the rest is the logical treatment of concepts in philosophy generally. We will therefore pursue the pure concepts to their first seeds and predispositions in the human understanding, where they lie prepared until at last, on the occasion of experience, they are developed and, freed by that same understanding from the empirical conditions attached to them, are displayed in their purity.

CHAPTER ONE: THE CLUE TO THE DISCOVERY OF ALL PURE CONCEPTS OF THE UNDERSTANDING

Pure concepts must be found systematically, from a single principle, not collected at random.

When a faculty of cognition is set in play, various concepts come forward, according to the various occasions, which make this faculty known. They can be collected in a more or less exhaustive list, depending on whether they have been observed for a longer time or with greater acuteness. But by this, as it were, mechanical procedure one can never determine with certainty where the investigation will be complete. Moreover, concepts that are found only on occasion in this way turn up in no order and with no systematic unity. In the end they are merely paired by similarities and arranged in series by the size of their content, from the simple to the more composite—series that are anything but systematic, although they are produced in a certain methodical way.

Transcendental philosophy has the advantage, but also the obligation, of seeking out its concepts according to a principle. For they spring pure and unmixed from the understanding as an absolute unity, and must therefore themselves be connected with one another according to one concept or idea. [85] Such a connection, however, furnishes a rule by which each pure concept of the understanding can be assigned its place, and all of them together their completeness, *a priori*—all of which would otherwise depend on whim or on chance.

SECTION ONE: THE LOGICAL USE OF THE UNDERSTANDING IN GENERAL

The understanding cognizes through concepts, and its only use of them is to judge.

The understanding was defined above merely negatively: as a nonsensible faculty of cognition. Now, independently of sensibility we cannot partake of any intuition. So the understanding is

not a faculty of intuition. But apart from intuition there is no other way of cognizing than through concepts. So the cognition of every understanding, at least of the human understanding, is a cognition through concepts: not intuitive, but discursive. All intuitions, as sensible, rest on affections; concepts, therefore, rest on functions. By a function, however, I mean the unity of the act of ordering different representations under a common one. Concepts are therefore based on the spontaneity of thinking, as sensible intuitions are based on the receptivity of impressions. Now, the understanding can make no other use of these concepts than to judge by means of them. Since no representation but intuition relates immediately to the object, a concept is never related immediately to an object, but always to some other representation of it (whether that is an intuition or itself already a concept). A judgment is therefore the mediate cognition of an object, and hence the representation of a representation of it. In every judgment there is a concept that holds of many, and that among these many also comprehends a given representation, which is then related immediately to the object. Thus, for example, in the judgment *All bodies are divisible*, the concept of the divisible [86] relates to various other concepts. Among these, however, it is here related in particular to the concept of body, and this concept in turn to certain appearances that we encounter. These objects, then, are represented mediately through the concept of divisibility. All judgments, accordingly, are functions of unity among our representations. Instead of an immediate representation, a higher one—which comprises this one and several others under itself—is used for the cognition of the object, and many possible cognitions are thereby drawn together into one. But we can trace all acts of the understanding back to judgments, so that the *understanding* in general can be represented as *a faculty of judging*. For according to what was said above, it is a faculty of thinking. Thinking is cognition through concepts. Concepts, however, as predicates of possible judgments, relate to some representation of a still undetermined object. Thus the concept of body means something—for

example, metal—that can be cognized through that concept. It is a concept, therefore, only because it contains under it other representations by means of which it can relate to objects. It is thus the predicate for a possible judgment, for example, Every metal is a body. The functions of the understanding can therefore all be found if one can completely set out the functions of unity in judgments. That this can be accomplished quite well, the following section will show.

§ 9. THE LOGICAL FUNCTION OF THE UNDERSTANDING IN JUDGMENTS

Abstracting from content, all judgments fall under four headings of three moments each.

If we abstract from all content of a judgment in general and attend only to the mere form of the understanding in it, we find that the function of thinking in a judgment can be brought under four headings, each of which contains three moments. They can conveniently be set out in the following table.

THE TABLE OF JUDGMENTS

Quantity, quality, relation and modality, with three forms of judgment under each.

[87] 1. *Quantity of Judgments*. Universal, Particular, Singular
2. *Quality*. Affirmative, Negative, Infinite
3. *Relation*. Categorical, Hypothetical, Disjunctive
4. *Modality*. Problematic, Assertoric, Apodictic

Since this division seems to depart in some respects, though not essential ones, from the customary technique of logicians, the following safeguards against possible misunderstanding will not be unnecessary.

1. Logicians rightly say that, in the use of judgments in syllogisms, singular judgments can be treated like universal ones. For precisely because they have no extension at all, their predicate cannot be referred merely to some of what is contained under the concept of the subject while being excluded from

some of it. It therefore holds of that concept without exception, just as if the concept were a commonly valid one that had an extension, to the whole of whose meaning the predicate applied. If, on the other hand, we compare a singular judgment with a commonly valid one merely as cognition, with respect to quantity, then it relates to the latter as unity relates to infinity, and so it is in itself essentially different from it. So if I assess a singular judgment (*judicium singulare*) not merely according to its internal validity but also, as cognition in general, according to the quantity it has in comparison with other cognitions, then it certainly differs from commonly valid judgments (*judicia communia*). It deserves a special place in a complete table of the moments of thinking in general [88] (though not, of course, in the logic that is restricted merely to the use of judgments in relation to one another).

2. In the same way, in a transcendental logic *infinite judgments* must also be distinguished from *affirmative* ones, even though in general logic they are rightly counted among the latter and do not make up a separate member of the division. General logic, namely, abstracts from all content of the predicate (even if the predicate is negative) and looks only to whether the predicate is attributed to the subject or opposed to it. Transcendental logic, however, also considers the judgment according to the value or content of this logical affirmation made by means of a merely negative predicate, and asks what gain this affirmation yields with respect to cognition as a whole. Had I said of the soul that it is not mortal, I would at least have warded off an error by a negative judgment. Now by the proposition "the soul is non-mortal" I have indeed, as far as logical form goes, really affirmed something, since I place the soul within the unlimited extension of non-dying beings. Now, of the whole extension of possible beings, the mortal makes up one part and the non-mortal the other. My proposition therefore says nothing other than that the soul is one of the infinite multitude of things that remain when I take away everything mortal. But all this does is limit the infinite sphere of everything possible to the extent that the mortal is

separated from it and the soul is placed in the remaining space of its extension. Even after this exclusion, however, this space still remains infinite, and still more parts of it could be taken away without the concept of the soul growing in the least or being affirmatively determined. These judgments, then, which are infinite with respect to logical extension, are in fact merely limiting with respect to the content of cognition in general. To that extent they must not be passed over in the transcendental table of all the moments of thinking in judgments, because the function of the understanding exercised in them may perhaps be important in the field of its pure cognition *a priori*.

3. All relations of thinking in judgments are those a) of the predicate to the subject, b) of the ground to the consequence, c) of the divided cognition and all the members of the division to one another. In the first kind of judgment only two concepts are considered; in the second, two judgments; in the third, several judgments in relation to one another. [89] The hypothetical proposition "if there is perfect justice, the persistently wicked will be punished" actually contains the relation of two propositions: "there is perfect justice" and "the persistently wicked are punished." Whether both of these propositions are true in themselves remains undecided here. It is only the consequence that is thought through this judgment. Finally, the disjunctive judgment contains a relation of two or more propositions to one another—a relation not of sequence, however, but of logical opposition, insofar as the sphere of the one excludes that of the other, and yet at the same time a relation of community, insofar as together they fill out the sphere of the cognition in question. It is therefore a relation of the parts of the sphere of a cognition, since the sphere of each part is a complement of the sphere of the other, making up the whole sum of the divided cognition. For example: the world exists either through blind chance, or through inner necessity, or through an external cause. Each of these propositions occupies a part of the sphere of possible cognition concerning the existence of a world in general; all of them together occupy the whole sphere. To remove the cogni-

tion from one of these spheres means to place it in one of the others; and, conversely, to place it in one sphere means to remove it from the rest. There is, therefore, in a disjunctive judgment a certain community of cognitions. It consists in their mutually excluding one another, yet thereby determining the true cognition *as a whole*, since taken together they make up the whole content of a single given cognition. And this is all I find it necessary to remark on this point, for the sake of what follows.

4. The modality of judgments is a quite special function of them. Its distinguishing feature is that it contributes nothing to the content of the judgment (for besides quantity, quality, and relation there is nothing further that could make up the content of a judgment), but concerns only the value of the copula in relation to thinking in general. *Problematic* judgments are those in which one takes affirming or denying as merely *possible* (optional); *assertoric* judgments, those in which it is regarded as *actual* (true); *apodictic* judgments, those in which one regards it as *necessary*.[7] Thus the two judgments whose relation [90] makes up the hypothetical judgment (*antec.* [antecedent] and *consequ.* [consequent]), and likewise those whose reciprocal action makes up the disjunctive judgment (the members of the division), are all merely problematic. In the example above, the proposition "there is perfect justice" is not stated assertorically but only thought as an optional judgment, one that someone might possibly accept; only the consequence is assertoric. Hence such judgments can even be obviously false and yet, taken problematically, be conditions of the cognition of truth. Thus the judgment *the world exists through blind chance* has only a problematic meaning in the disjunctive judgment—namely, that someone might perhaps accept this proposition for a moment—and yet it helps us find the true one (just as marking the wrong road among all the roads one can take does). The problematic proposition is therefore the one that expresses only logical possibility

7 KANT'S NOTE. As if thinking were, in the first case, a function of the *understanding*; in the second, of the *power of judgment*; in the third, of *reason*. This is a remark whose clarification must wait until later.

(which is not objective), that is, a free choice to let such a proposition count, a merely arbitrary admission of it into the understanding. The assertoric proposition speaks of logical actuality or truth—as, for instance, in a hypothetical syllogism the *antecedent* occurs problematically in the major premise but assertorically in the minor premise—and it indicates that the proposition is already connected with the understanding according to its laws. The apodictic proposition thinks of the assertoric one as determined by these very laws of the understanding, and hence as affirming *a priori*; in this way it expresses logical necessity. Now here everything is incorporated into the understanding by degrees: one first judges something problematically, then perhaps also accepts it assertorically as true, and finally asserts it as inseparably connected with the understanding, that is, as necessary and apodictic. For this reason these three functions of modality can also be called so many moments of thinking in general.

§ 10. THE PURE CONCEPTS OF THE UNDERSTANDING, OR CATEGORIES

The same functions that unify judgments also unify the synthesis of intuition, yielding the categories.

General logic, as has already been said several times, abstracts from all content of cognition and expects representations to be given to it from elsewhere, from wherever [91] that may be, in order first to transform them into concepts, which happens analytically. Transcendental logic, by contrast, has before it a manifold of sensibility *a priori*, which the transcendental aesthetic offers it in order to give the pure concepts of the understanding a material; without this material, transcendental logic would have no content at all and would therefore be completely empty. Now space and time contain a manifold of pure intuition *a priori*. Yet they belong to the conditions of the receptivity of our mind, under which alone it can receive representations of objects, and which must therefore always affect the concept of these objects as well. But the spontaneity of our thinking

requires that this manifold first be gone through, taken up, and combined in a certain way in order to make a cognition out of it. This action I call synthesis.

By *synthesis* in the most general sense, however, I understand the action of putting different representations together and comprehending their manifoldness in one cognition. Such a synthesis is *pure* if the manifold is given not empirically but *a priori* (as is the manifold in space and time). Our representations must be given before any analysis of them, and no concepts can arise analytically *as far as their content is concerned*. The synthesis of a manifold (whether it is given empirically or *a priori*), however, is what first produces a cognition. At first this cognition may still be crude and confused and so in need of analysis; yet synthesis is what actually gathers the elements into cognitions and unites them into a certain content. It is therefore the first thing we must attend to if we want to judge the first origin of our cognition.

Synthesis in general is, as we shall see later, the mere effect of the imagination, a blind but indispensable function of the soul. Without it we would have no cognition whatsoever, yet we are seldom even conscious of it. But to bring this synthesis *to concepts* is a function that belongs to the understanding, and through this function the understanding first provides us with cognition in the proper sense.

Now *pure synthesis*, *represented generally*, yields the pure concept of the understanding. By this synthesis, however, I understand the synthesis that rests on a ground of synthetic unity *a priori*. [92] Thus our counting (this is especially noticeable with larger numbers) is a *synthesis according to concepts*, because it takes place according to a common ground of unity (for example, the decimal system). Under this concept, therefore, the unity in the synthesis of the manifold becomes necessary.

Analytically, different representations are brought *under* one concept (a business that general logic deals with). But transcendental logic teaches how to bring not representations but the *pure synthesis* of representations *to* concepts. The first thing

that must be given to us for the sake of the cognition of all objects *a priori* is the *manifold* of pure intuition. The *synthesis* of this manifold by the imagination is the second, but it does not yet yield any cognition. The concepts that give this pure synthesis *unity*, and that consist solely in the representation of this necessary synthetic unity, supply the third element needed for the cognition of an object that comes before us; and they rest on the understanding.

The same function that gives unity to the different representations *in a judgment* also gives unity to the mere synthesis of different representations *in an intuition*; and this unity, expressed generally, is called the pure concept of the understanding. The same understanding, then, and indeed through the very same actions by which it brought about the logical form of a judgment in concepts by means of analytic unity, also brings a transcendental content into its representations by means of the synthetic unity of the manifold in intuition in general. That is why these representations are called pure concepts of the understanding, which apply *a priori* to objects—something general logic cannot accomplish.

In this way there arise exactly as many pure concepts of the understanding, applying *a priori* to objects of intuition in general, as there were logical functions in all possible judgments in the preceding table. For the understanding is completely exhausted by these functions, and its capacity is thereby measured out in full. Following Aristotle, we will call these concepts *categories*, since our aim is at bottom the same as his, although in its execution it departs very far from his. [93] Table of the Categories.[8]

8 Aristotle (384–322 BC) listed the most general kinds of predication in his treatise *Categories*.

THE TABLE OF CATEGORIES

Twelve pure concepts of the understanding under quantity, quality, relation and modality.

1. *Of Quantity*: Unity, Plurality, Totality.

2. *Of Quality*: Reality, Negation, Limitation.

3. *Of Relation*: of Inherence and Subsistence (*substantia et accidens* [substance and accident]); of Causality and Dependence (cause and effect); of Community (reciprocal action between what acts and what is acted upon).

4. *Of Modality*: Possibility—Impossibility; Existence—Nonexistence; Necessity—Contingency.

This, then, is the list of all the originally pure concepts of synthesis that the understanding contains *a priori* within itself. It is only on their account that it is a pure understanding at all, since only through them can it understand something in the manifold of intuition, that is, think an object of intuition. This division is generated systematically from a common principle, namely the faculty of judging (which is the same as the faculty of thinking). It has not arisen rhapsodically, from a hit-or-miss search for pure concepts whose completeness one can never be sure of, since it is inferred only by induction—not to mention that in this latter way one never sees why precisely these concepts, and not others, reside in the pure understanding. It was a project worthy of an acute mind for *Aristotle* to seek out these fundamental concepts. But since he had no principle, he gathered them up as he came across them, and first scraped together ten of them, which he called *categories* [94] (predicaments). Later he believed he had found five more, which he added under the name of postpredicaments. But his table still remained deficient. Besides, it also includes some *modi* [modes] of pure sensibility (*quando* [when], *ubi* [where], *situs* [position], and likewise *prius* [before], *simul* [at the same time]), as well as an empirical one (*motus* [motion]), which do not belong at all in this ancestral register of the understanding. Or else derived concepts are counted among the ori-

ginal ones (*actio* [action], *passio* [being acted upon]), and some of the original ones are missing entirely.[9]

With regard to the latter, then, it should further be noted that the categories, as the true *ancestral concepts* of the pure understanding, also have their equally pure *derived concepts*. These can by no means be passed over in a complete system of transcendental philosophy, but in a merely critical essay I can be content simply to mention them.

Allow me to call these pure but derived concepts of the understanding the *predicables* of the pure understanding (in contrast to the predicaments). Once one has the original and primitive concepts, the derived and subordinate ones are easily added, and the family tree of the pure understanding can be drawn in full. Since my concern here is not with the completeness of the system but only with the completeness of the principles for a system, I am saving this supplement for another undertaking. But one can achieve this aim fairly well by taking up the textbooks of ontology and, for example, placing under the category of causality the predicables of force, action, and being acted upon; under that of community, those of presence and resistance; under the predicaments of modality, those of coming to be, passing away, alteration, and so on. The categories, combined with the *modi* of pure sensibility or with one another, yield a great multitude of derived concepts *a priori*. To take note of them and, where possible, to list them completely would be a useful and not unpleasant labor, but one that can be dispensed with here.

In this treatise I deliberately spare myself the definitions of these categories, even though I may well be in possession of them. In what follows I will analyze these concepts to the degree sufficient for the doctrine of method that I am working out. In a system of pure reason one could rightly demand them of me; but here they would only make us lose sight of the main point of the inquiry, [95] since they would stir up doubts and objections

9 The postpredicaments are the further concepts (opposition, priority, simultaneity, motion, having) discussed in the final chapters of Aristotle's *Categories*.

that can very well be referred to another occasion without taking anything away from the essential aim. Still, from the little I have said about this, it is clearly evident that a complete dictionary, with all the explanations it requires, would be not only possible but also easy to produce. The compartments are already in place; they only need to be filled in. And a systematic topic such as the present one does not easily miss the place where each concept properly belongs, while it also easily reveals any place that is still empty.

§ 11. REMARKS ON THE TABLE OF CATEGORIES

Mathematical and dynamical classes, and why the third category in each class combines the first two.

Some fine observations can be made about this table of the categories, which may perhaps have significant consequences for the scientific form of all cognitions of reason. This table is uncommonly useful—indeed indispensable—in the theoretical part of philosophy, both for sketching completely *the plan of the whole of a science*, insofar as it rests on concepts *a priori*, and for dividing that science systematically *according to determinate principles*. That much is already evident from the fact that the table contains all the elementary concepts of the understanding completely, and even contains the form of a system of them in the human understanding. It consequently gives guidance to all the *moments* of a projected speculative science, and even to their *order*, as I have indeed shown by an example elsewhere.[10] Here, then, are some of these remarks.

The first is that this table, which contains four classes of concepts of the understanding, can first be split into two divisions. The first is directed to objects of intuition (pure as well as empirical); the second, to the existence of these objects (either in relation to one another or in relation to the understanding).

10 KANT'S NOTE. *Metaphysical Foundations of Natural Science.*

TRANSLATOR'S NOTE. Kant's *Metaphysische Anfangsgründe der Naturwissenschaft* (1786), whose four chapters follow the four headings of the table of categories.

The first class I would call that of the *mathematical* categories, the second that of the *dynamical* categories. As one sees, the first class has no correlates; these are found only in the second class. [96] This difference must surely have a ground in the nature of the understanding.

2nd Remark. There is everywhere an equal number of categories in each class, namely three. This likewise calls for reflection, since otherwise all division *a priori* by means of concepts must be dichotomy. Add to this that the third category in each class always arises from the combination of the second with the first.

Thus *totality* (allness) is nothing other than plurality considered as unity; *limitation* is nothing other than reality combined with negation; community is the *causality* of one substance reciprocally determining another; finally, *necessity* is nothing other than existence that is given through possibility itself. But one must by no means think that the third category is therefore a merely derived concept and not an ancestral concept of the pure understanding. For the combination of the first and the second in order to produce the third concept requires a special act of the understanding, which is not the same as the act exercised in the first and the second. Thus the concept of a *number* (which belongs to the category of totality) is not always possible wherever the concepts of multitude and of unity are present (for example, in the representation of the infinite). Nor, from my combining the concept of a *cause* with that of a *substance*, can I straightaway understand *influence*, that is, how a substance can become the cause of something in another substance. From this it is evident that a special act of the understanding is required here; and likewise in the other cases.

3rd Remark. In the case of one single category, namely that of *community*, which is found under the third heading, its agreement with the form of a disjunctive judgment that corresponds to it in the table of logical functions is not as obvious as it is in the case of the others.

To assure oneself of this agreement, one must note the following. In all disjunctive judgments the sphere (the multitude of

everything contained under the judgment) is represented as a whole divided into parts (the subordinate concepts). And since one part cannot be contained under another, the parts are thought as *coordinated* with one another, not *subordinated*, so that they determine one another not *one-sidedly*, as in a *series*, but *reciprocally*, as in an *aggregate* (if one [97] member of the division is posited, all the others are excluded, and vice versa).

Now a similar connection is thought in a *whole* of *things*. There, one thing is not *subordinated*, as effect, to another as the cause of its existence; rather, each is *coordinated* with the others, simultaneously and reciprocally, as cause with respect to their determination (for example, in a body whose parts reciprocally attract and also resist one another). This is a quite different kind of connection from the one found in the mere relation of cause to effect (of ground to consequence), in which the consequence does not in turn reciprocally determine the ground, and therefore does not make up one whole with it (as the creator of the world does not make up one whole with the world). The understanding follows the same procedure when it represents to itself the sphere of a divided concept as when it thinks of a thing as divisible. Just as the members of the division in the former case exclude one another and yet are connected in one sphere, so the understanding represents the parts of the latter as parts whose existence (as substances) belongs to each of them exclusively of the others, yet as connected in one whole.

§ 12. THE SCHOLASTIC TRANSCENDENTALS

The old predicates one, true and good are only logical criteria of cognition, not further categories.

In the transcendental philosophy of the ancients, however, there is yet another chapter containing pure concepts of the understanding which, although they are not counted among the categories, were nevertheless supposed, in the ancients' view, to count as concepts *a priori* of objects. In that case, however, they would increase the number of the categories, which cannot be.

They are set out in the proposition so famous among the scholastics: *quodlibet ens est unum, verum, bonum* [every being is one, true, good].[11] Now the use of this principle turned out to be very meager as far as its consequences go (they yielded nothing but tautological propositions), so that in modern times it is usually set out in metaphysics almost only as a matter of courtesy. Even so, a thought that has survived for so long, however empty it may seem, always deserves an investigation of its origin, and justifies the conjecture that it has its ground in some rule of the understanding that has merely, as often happens, been wrongly interpreted. These supposedly transcendental predicates of *things* are nothing other than logical requirements [98] and criteria of all *cognition* of *things* in general, and they are based on the categories of quantity, namely *unity*, *plurality*, and *totality*. Only, these categories ought properly to have been taken materially, as belonging to the possibility of things themselves; the ancients in fact used them merely in a formal sense, as belonging to the logical requirement with respect to every cognition, and yet they incautiously turned these criteria of thinking into properties of things in themselves. In every cognition of an object there is, namely, *unity* of the concept, which can be called *qualitative unity* insofar as we think by it only the unity of the comprehension of the manifold of cognitions—as, say, the unity of the theme in a play, a speech, or a fable. Second, there is *truth* with respect to the consequences: the more true consequences follow from a given concept, the more indications there are of its objective reality. This could be called the *qualitative plurality* of the marks that belong to a concept as their common ground (and are not thought in it as a magnitude). Finally, third, there is *perfection*, which consists in this plurality, conversely, leading back together to the unity of the concept and agreeing completely with this concept and no other; this can be called *qualitative completeness* (totality). From this it is evident that these logical criteria of the possibility of cognition in general trans-

11 The medieval doctrine of the "transcendentals," properties held to belong to every being as such.

form the three categories of quantity—in which the unity in the production of the quantum must be assumed to be homogeneous throughout—only for the purpose of connecting even *heterogeneous* pieces of cognition in one consciousness, by means of the quality of a cognition as the principle. Thus the criterion of the possibility of a concept (not of its object) is the definition, in which the *unity* of the concept, the *truth* of everything that may immediately be derived from it, and finally the *completeness* of what has been drawn from it, make up what is required for establishing the whole concept. Or, likewise, the *criterion of a hypothesis* is: the intelligibility of the assumed *ground of explanation*, or its *unity* (without auxiliary hypotheses); the *truth* (agreement with itself and with experience) of the consequences to be derived from it; and finally the *completeness* of the ground of explanation with respect to these consequences. The consequences point back to neither more nor less than was assumed in the hypothesis, and they give back *a posteriori* and analytically [99] what was thought *a priori* and synthetically, and agree with it. Thus the concepts of unity, truth, and perfection do not at all supplement the transcendental table of the categories, as though it were somehow deficient. Rather, the relation of these concepts to objects is set entirely aside, and the procedure with them is merely brought under general logical rules for the agreement of cognition with itself.

The Transcendental Deduction

Why the categories must apply to all objects of experience: the unity of apperception.

ERSTER ABSCHNITT. § 13. VON DEN PRINCIPIEN EINER TRANSSCENDENTALEN DEDUCTION ÜBERHAUPT.

Teachers of law, when they speak of entitlements and claims, distinguish in a legal case the question of what is lawful (*quid iuris*) from the question that concerns the fact (*quid facti*). Since they demand proof of both, they call the first proof, which is to establish the entitlement or the legal claim, the *deduction*. We make use of a multitude of empirical concepts without objection from anyone, and even without a deduction we consider ourselves entitled to ascribe a sense and an imagined meaning to them, because we always have experience at hand to prove their objective reality.[1] There are, however, also usurped concepts, such as *fortune* and *fate*. These circulate with almost universal indulgence, yet they are sometimes challenged by the question *quid iuris*. One then finds oneself in no small embarrassment over their deduction, since one can cite no clear legal ground, either from experience or from reason, that would make the entitlement to use them clear.

Among the many kinds of concepts, however, that make up the very mixed fabric of human cognition, there are some that are also destined for pure use *a priori* (completely independent of all experience), [100] and their entitlement always requires a

1 Latin: *quid iuris*, "what is lawful?", the question of right; *quid facti*, "what is the fact?", the question of fact.

deduction. For proofs from experience are not sufficient to establish the lawfulness of such a use; and yet one must know how these concepts can relate to objects that they do not take from any experience. I therefore call the explanation of the way in which concepts *a priori* can relate to objects the *transcendental deduction* of these concepts, and I distinguish it from *empirical deduction*, which shows the way in which a concept has been acquired through experience and reflection on experience. Empirical deduction therefore concerns not the lawfulness but the fact from which the possession arose.

We already have two kinds of concepts, of entirely different sorts, which nevertheless agree in this: both relate to objects completely *a priori*. These are the concepts of space and time, as forms of sensibility, and the categories, as concepts of the understanding. To attempt an empirical deduction of them would be entirely futile labor, because what distinguishes their nature is precisely that they relate to their objects without having borrowed anything from experience for the representation of those objects. If a deduction of them is needed, therefore, it will always have to be transcendental.

Nevertheless, with these concepts, as with all cognition, we can seek in experience, if not the principle of their possibility, then at least the occasioning causes of their generation. Here the impressions of the senses provide the first occasion for the whole power of cognition to open itself up with respect to them and to bring about experience. Experience contains two very heterogeneous elements: a *matter* for cognition, from the senses, and a certain *form* for ordering it, from the inner source of pure intuiting and thinking. These are first brought into exercise on the occasion of the matter, and they produce concepts. Such a tracing of the first strivings of our power of cognition, as it ascends from individual perceptions to universal concepts, is undoubtedly of great use, and we have the famous *Locke* to thank for first opening the way to it. But a *deduction* of pure concepts *a priori* is never achieved in this way; it does not lie along this path at all. For with respect to their future use, which is to

be entirely independent of experience, these concepts must be able to show a quite different birth certificate from one of descent [101] from experiences. This attempted physiological derivation cannot properly be called a deduction at all, because it concerns a *quaestio facti*. I will therefore call it the explanation of the *possession* of a pure cognition.[2] It is therefore clear that of these concepts there can be only a transcendental deduction and by no means an empirical one; and that, with respect to pure concepts *a priori*, empirical deductions are nothing but idle attempts, which can occupy only someone who has not grasped the entirely distinctive nature of these cognitions.

But even if it is granted that the only possible kind of deduction of pure cognition *a priori* is the transcendental one, it does not follow that such a deduction is so absolutely necessary. Above, we traced the concepts of space and time to their sources by means of a transcendental deduction, and we explained and determined their objective validity *a priori*. Geometry, nevertheless, goes its sure way through nothing but cognitions *a priori*, without having to ask philosophy for a certificate attesting the pure and lawful descent of its fundamental concept of space. But in this science the use of the concept extends only to the outer sensible world, of which space is the pure form of intuition. In this world, therefore, all geometrical cognition has immediate evidence, because it is grounded on intuition *a priori*; and the objects are given *a priori* (as to their form) in intuition through the cognition itself. With the *pure concepts of the understanding*, by contrast, there begins the unavoidable need to seek a transcendental deduction not only of them but also of space. For these concepts speak of objects not through predicates of intuition and sensibility but through predicates of pure thinking *a priori*, and so they relate to objects universally, without any conditions of sensibility. Since they are not grounded on experience, they also cannot point to any object in intuition *a priori* on which they could ground their synthesis prior to all experience.

2 John Locke (1632–1704), English philosopher whose *Essay Concerning Human Understanding* (1690) traced all ideas to experience.

Hence they not only arouse suspicion about the objective validity and the limits of their use; they also make that *concept of space* ambiguous, since they are inclined to use it beyond the conditions of sensible [102] intuition. This is also why a transcendental deduction of space was needed above. So the reader must be convinced of the unavoidable necessity of such a transcendental deduction before he has taken a single step in the field of pure reason. Otherwise he proceeds blindly, and after wandering about in many directions he must return to the same ignorance from which he set out. But he must also see the unavoidable difficulty clearly in advance, so that he will not complain of obscurity where the subject itself is deeply veiled, or grow discouraged too soon at the clearing away of obstacles. For the choice is this: either we give up completely all claims to insights of pure reason in its favorite field, namely the field beyond the boundaries of all possible experience, or we bring this critical investigation to completion.

With the concepts of space and time we were able above, with little effort, to make comprehensible how these, as cognitions *a priori*, must nevertheless relate necessarily to objects, and how they made possible a synthetic cognition of objects independent of all experience. For since an object can appear to us, that is, be an object of empirical intuition, only by means of such pure forms of sensibility, space and time are pure intuitions that contain *a priori* the condition of the possibility of objects as appearances, and the synthesis in them has objective validity.

The categories of the understanding, on the other hand, do not represent to us at all the conditions under which objects are given in intuition. Objects can therefore certainly appear to us without necessarily having to relate to functions of the understanding, and so without the understanding containing their conditions *a priori*. Here, then, a difficulty arises that we did not encounter in the field of sensibility: namely, how *subjective conditions of thinking* should have *objective validity*, that is, should furnish conditions of the possibility of all cognition of objects. For without functions of the understanding, appearances can

certainly be given in intuition. Take, for example, the concept of cause, which signifies a particular kind of synthesis, in which upon something A something entirely different, B, is posited according to a rule. It is not clear *a priori* why appearances should contain anything of this kind (for experiences cannot be cited as proof, [103] since the objective validity of this concept must be able to be established *a priori*). It is therefore doubtful *a priori* whether such a concept might not be altogether empty and meet with no object anywhere among appearances. That objects of sensible intuition must conform to the formal conditions of sensibility that lie *a priori* in the mind is clear, because otherwise they would not be objects for us. But that they must, in addition, also conform to the conditions that the understanding needs for the synthetic unity of thinking—this conclusion is not so easy to see. For appearances might, after all, be so constituted that the understanding did not find them in conformity with the conditions of its unity at all. Everything might lie in such confusion that, for example, nothing presented itself in the sequence of appearances that furnished a rule of synthesis and so corresponded to the concept of cause and effect, so that this concept would be entirely empty, null, and without meaning. Appearances would nonetheless present objects to our intuition, for intuition in no way requires the functions of thinking.

Suppose one thought to extricate oneself from the toil of these investigations by saying that experience constantly offers examples of such regularity in appearances, which give sufficient occasion to abstract the concept of cause from them and thereby at the same time to confirm the objective validity of such a concept. One would then fail to notice that the concept of cause cannot arise in this way at all. Rather, it must either be grounded completely *a priori* in the understanding or be given up entirely as a mere figment of the brain. For this concept strictly requires that something A be of such a kind that something else, B, follows from it *necessarily* and *according to an absolutely universal rule*. Appearances do indeed furnish cases from which a rule is possible according to which something usually

happens, but never a rule that the outcome is *necessary*. Hence the synthesis of cause and effect also carries a dignity that cannot be expressed empirically at all: namely, that the effect does not merely come along in addition to the cause but is posited through it and follows *from* it. Strict universality of a rule is, moreover, not a property of empirical rules at all; through induction these can acquire only comparative universality, that is, widespread usefulness. But the use of the pure concepts of the understanding [104] would change entirely if one chose to treat them only as empirical products.

§ 14. TRANSITION TO THE TRANSCENDENTAL DEDUCTION OF THE CATEGORIES

The categories are valid of objects if only through them can experience be thought at all.

There are only two possible cases in which synthetic representation and its objects can come together, relate to each other necessarily, and, as it were, meet one another: either the object alone makes the representation possible, or the representation alone makes the object possible. If the former, this relation is only empirical, and the representation is never possible *a priori*. And this is the case with appearances with respect to what in them belongs to sensation. If the latter, then, since representation in itself (for we are not speaking here at all of its causality by means of the will) does not produce its object *as far as its existence is concerned*, the representation is still determining *a priori* with respect to the object if only through it is it possible *to cognize something as an object*. But there are two conditions under which alone the cognition of an object is possible: first, *intuition*, through which the object is given, though only as appearance; second, *concept*, through which an object is thought that corresponds to this intuition. It is clear from the above, however, that the first condition, namely the one under which alone objects can be intuited, does in fact lie *a priori* in the mind as the ground of objects as to their form. All appearances therefore necessarily agree with this formal condition of sensibility, because only

through it can they appear, that is, be empirically intuited and given. Now the question arises whether concepts *a priori* do not also come first, as conditions under which alone something is, if not intuited, nevertheless thought as an object in general. For then all empirical cognition of objects necessarily conforms to such concepts, because without presupposing them nothing is possible *as an object of experience*. Now all experience contains, besides the intuition of the senses through which something is given, also a *concept* of an object that is given or appears in intuition. Accordingly, concepts of objects in general will lie at the basis of all experiential cognition as its conditions [105] *a priori*. Consequently the objective validity of the categories, as concepts *a priori*, will rest on this: that through them alone experience is possible (as far as the form of thinking is concerned). For then they relate necessarily and *a priori* to objects of experience, because only by means of them can any object of experience be thought at all.

The transcendental deduction of all concepts *a priori* therefore has a principle toward which the whole inquiry must be directed, namely this: that they must be cognized as conditions *a priori* of the possibility of experience (whether of the intuition encountered in it or of the thinking). Concepts that furnish the objective ground of the possibility of experience are necessary for that very reason. But the unfolding of the experience in which they are encountered is not their deduction (but their illustration), because in that case they would after all be merely contingent. Without this original relation to possible experience, in which all objects of cognition occur, their relation to any object whatever could not be comprehended at all.

The famous *Locke*, for want of this consideration, and because he encountered pure concepts of the understanding in experience, also derived them from experience. Yet he proceeded so *inconsistently* that he ventured with them on attempts at cognitions that go far beyond all the boundaries of experience. *David Hume* recognized that, in order to do the latter, these concepts would have to have their origin *a priori*. But he could not explain

at all how it is possible that the understanding must think concepts that are not in themselves combined in the understanding as nevertheless necessarily combined in the object. Nor did it occur to him that the understanding might perhaps, through these very concepts, be the author of the experience in which its objects are encountered. So, driven by necessity, he derived them from experience: namely, from a subjective necessity that arises from frequent association in experience and is eventually mistaken for objective necessity—that is, from *habit*. Afterward, however, he proceeded quite consistently, in declaring it impossible to go beyond the boundaries of experience with these concepts and the principles they give rise to. [106] But the *empirical* derivation on which both of them hit cannot be reconciled with the actuality of the scientific cognitions *a priori* that we possess, namely *pure mathematics* and *universal natural science*, and is therefore refuted by the fact.

The first of these two famous men threw the door wide open to *fanaticism*, because reason, once it has entitlements on its side, can no longer be kept within limits by vague recommendations of moderation. The second gave himself over entirely to *skepticism*, since he believed he had discovered so universal a delusion of our cognitive faculty, one that had been taken for reason.—We are now about to try whether human reason cannot be steered safely between these two cliffs, assigned determinate boundaries, and yet have the whole field of its purposive activity kept open to it.

First, though, I will give the *explanation of the categories*. They are concepts of an object in general, through which its intuition is regarded as *determined* with respect to one of the *logical functions* of judging. Thus the function of the *categorical* judgment was that of the relation of subject to predicate, for example, "All bodies are divisible." But with respect to the merely logical use of the understanding, it remained undetermined to which of the two concepts one wants to give the function of subject and to which that of predicate. For one can also say: "Something divisible is a body." But through the category of substance, if I bring

the concept of a body under it, it is determined that its empirical intuition in experience must always be considered only as subject, never as mere predicate. And so with all the other categories.

§ 15. THE POSSIBILITY OF A COMBINATION IN GENERAL

Combination is never given by the senses; it is an act of the understanding.

[107] The manifold of representations can be given in an intuition that is merely sensible, that is, nothing but receptivity; and the form of this intuition can lie *a priori* in our faculty of representation without being anything other than the way in which the subject is affected. But the *combination* (*conjunctio*) of a manifold in general can never come into us through the senses, and so it cannot already be contained in the pure form of sensible intuition either. For it is an act of the spontaneity of the power of representation; and since this power, to distinguish it from sensibility, must be called understanding, all combination is an action of the understanding. This holds whether or not we become conscious of it, whether it is a combination of the manifold of intuition or of various concepts, and, in the former case, whether of sensible or non-sensible intuition. We will designate this action with the general name *synthesis*, in order at the same time to draw attention to this: that we can represent nothing to ourselves as combined in the object without having first combined it ourselves, and that among all representations *combination* is the only one that is not given through objects but can be performed only by the subject itself, because it is an act of its self-activity.[3] One readily sees here that this action must originally be unitary and equally valid for all combination, and that dissolution, *analysis*, which seems to be its opposite, nevertheless always presupposes it. For where the understanding has not previously combined anything, it cannot dissolve anything

3 *Conjunctio* (Latin): "joining together."

either, since only *through it* could anything have been given to the power of representation as combined.

[108] But the concept of combination carries with it, besides the concept of the manifold and of its synthesis, also the concept of the manifold's unity. Combination is representation of the *synthetic* unity of the manifold.[4] The representation of this unity therefore cannot arise from combination; rather, by being added to the representation of the manifold, it first makes the concept of combination possible. This unity, which precedes all concepts of combination *a priori*, is not, say, that category of unity (§ 10). For all categories are grounded on logical functions in judgments; but in these, combination, and hence unity of given concepts, is already thought. The category therefore already presupposes combination. We must therefore seek this unity (as qualitative, § 12) still higher up: namely, in that which itself contains the ground of the unity of different concepts in judgments, and hence of the possibility of the understanding, even in its logical use.

§ 16. THE ORIGINAL SYNTHETIC UNITY OF APPERCEPTION

The "I think" must be able to accompany all my representations.

The *I think* must be able to accompany all my representations. For otherwise something would be represented in me that could not be thought at all—which is as much as to say that the representation would either be impossible or at least be nothing for me. The representation that can be given prior to all thinking is called *intuition*. So all the manifold of intuition has a necessary relation to the *I think* in the same subject in which this manifold is encountered. But this representation is an act of *spontaneity*, that is, it cannot be regarded as belonging to sensibility. I call it *pure apperception*, to distinguish it from *empirical* apperception,

4 KANT'S NOTE. Whether the representations themselves are identical, so that one could be thought analytically through the other, does not come into consideration here. The *consciousness* of the one, insofar as we are speaking of the manifold, must still always be distinguished from the consciousness of the other; and all that matters here is the synthesis of this (possible) consciousness.

or also *original apperception*, because it is that self-consciousness which, in producing the representation *I think*, [109] a representation that must be able to accompany all others and that is one and the same in all consciousness, cannot itself be accompanied by any further representation. I also call its unity the *transcendental* unity of self-consciousness, to indicate the possibility of cognition *a priori* from it. For the manifold representations that are given in a certain intuition would not all together be *my* representations if they did not all together belong to one self-consciousness. That is, as my representations (even if I am not conscious of them as such), they must still necessarily conform to the condition under which alone they *can* stand together in one universal self-consciousness, because otherwise they would not belong to me throughout. Much can be inferred from this original combination.

Namely, this thoroughgoing identity of the apperception of a manifold given in intuition contains a synthesis of representations, and is possible only through the consciousness of this synthesis. For the empirical consciousness that accompanies different representations is in itself scattered and without relation to the identity of the subject. This relation therefore does not yet come about by my accompanying each representation with consciousness, but by my *adding* one representation to another and being conscious of their synthesis. So only because I can combine a manifold of given representations *in one consciousness* is it possible for me to represent to myself the *identity of the consciousness in these representations* itself. That is, the *analytic* unity of apperception is possible only under the presuppos-

ition of some *synthetic* unity.[5] The thought "These representations given in intuition [110] all belong to me" accordingly means the same as "I unite them in one self-consciousness, or at least can unite them in it." And although this thought is not yet itself the consciousness of the *synthesis* of the representations, it nevertheless presupposes the possibility of that synthesis. That is, only because I can grasp the manifold of these representations in one consciousness do I call them all together *my* representations. For otherwise I would have as many-colored and varied a self as I have representations of which I am conscious. Synthetic unity of the manifold of intuitions, as given *a priori*, is therefore the ground of the identity of apperception itself, which precedes *a priori* all my determinate thinking. But combination does not lie in objects, and cannot, say, be borrowed from them through perception and only thereby taken up into the understanding. It is solely an operation of the understanding, which is itself nothing more than the faculty of combining *a priori* and of bringing the manifold of given representations under the unity of apperception. This principle is the highest in the whole of human cognition.

Now this principle of the necessary unity of apperception is itself, to be sure, identical, and hence an analytic proposition. Yet it declares a synthesis of the manifold given in an intuition to be necessary, without which that thoroughgoing identity of self-consciousness cannot be thought. For through the I, as a

5 KANT'S NOTE. The analytic unity of consciousness attaches to all common concepts as such. For example, if I think *red* in general, I thereby represent to myself a property that can be encountered somewhere (as a mark) or be combined with other representations. So only by means of a previously thought possible synthetic unity can I represent to myself the analytic unity. A representation that is to be thought as common to *different* things is regarded as belonging to things that, besides it, also have something *different* in them. Consequently it must be thought beforehand in synthetic unity with other representations (even if only possible ones) before I can think in it the analytic unity of consciousness that makes it a *conceptus communis*. And so the synthetic unity of apperception is the highest point, to which one must attach all use of the understanding, even the whole of logic and, after it, transcendental philosophy; indeed, this faculty is the understanding itself.

TRANSLATOR'S NOTE. *Conceptus communis* (Latin): "common concept."

simple representation, nothing manifold is given; the manifold can only be given in intuition, which is distinct from it, and be thought through *combination* in one consciousness. An understanding in which all the manifold was at the same time given through self-consciousness would *intuit*; ours can only think, and must seek intuition in the senses. I am therefore conscious of the identical self with respect to the manifold of the representations given to me in an intuition, because I call them all together *my representations*, which make up *one*. But that is as much as to say that I am conscious of a necessary synthesis of them *a priori*. This synthesis is called the original synthetic unity of apperception: all representations given to me stand under it, but they must also be brought under it by a synthesis.

§ 17. THE PRINCIPLE OF THE SYNTHETIC UNITY OF APPERCEPTION IS THE SUPREME PRINCIPLE OF ALL USE OF THE UNDERSTANDING

An object is that in whose concept a given manifold is united in one consciousness.

111 The supreme principle of the possibility of all intuition in relation to sensibility was, according to the Transcendental Aesthetic, that all the manifold of intuition stand under the formal conditions of space and time. The supreme principle of that same possibility in relation to the understanding is that all the manifold of intuition stand under conditions of the original synthetic unity of apperception.[6] All the manifold representations of intuition stand under the first insofar as they are *given* to us, and under the second insofar as they must be able to be *combined* in one consciousness. For without that, nothing can be

6 KANT'S NOTE. Space and time and all their parts are *intuitions*, and hence singular representations together with the manifold that they contain within themselves (see the Transcendental Aesthetic). They are therefore not mere concepts, through which one and the same consciousness is found as contained in many representations; rather, in them many representations are found as contained in one representation and in the consciousness of it, and hence as composite. Consequently the unity of consciousness is found in them as *synthetic*, yet nevertheless as original. This *singularity* of theirs is important in application (see § 25).

thought or cognized through them, since the given representations would not have the act of apperception, *I think*, in common, and so would not be comprehended together in one self-consciousness.

Understanding is, generally speaking, the faculty of *cognitions*. These consist in the determinate relation of given representations to an object. An *object*, however, is that in the concept of which the manifold of a given intuition is *united*. But all uniting of representations requires unity of consciousness in their synthesis. Consequently the unity of consciousness is what alone constitutes the relation of representations to an object, and hence their objective validity, and so their becoming cognitions; and on it, consequently, the very possibility of the understanding rests.

The first pure cognition of the understanding, then, on which the whole of its remaining use is grounded, and which is at the same time entirely independent of all conditions of sensible intuition, is the principle of the original *synthetic* unity of apperception. Thus the mere form of outer sensible intuition, space, is not yet cognition at all; [112] it only provides the manifold of intuition *a priori* for a possible cognition. But in order to cognize anything in space, for example, a line, I must *draw* it, and so bring about synthetically a determinate combination of the given manifold, in such a way that the unity of this action is at the same time the unity of consciousness (in the concept of a line). Only through this is an object (a determinate space) first cognized. The synthetic unity of consciousness is therefore an objective condition of all cognition. It is not merely a condition that I myself need in order to cognize an object, but one under which every intuition must stand *in order to become an object for me*. For in any other way, and without this synthesis, the manifold would not unite in one consciousness.

This last proposition is, as we have said, itself analytic, although it makes synthetic unity the condition of all thinking. For it says no more than that all *my* representations in any given intuition must stand under the condition under which alone I

can count them, as my representations, as belonging to the identical self, and so can comprehend them together, as synthetically combined in one apperception, through the universal expression *I think*.

But this fundamental principle is still not a principle for every possible understanding whatever, but only for an understanding through whose pure apperception, in the representation *I am*, nothing manifold at all is yet given. An understanding through whose self-consciousness the manifold of intuition would at the same time be given—an understanding through whose representation the objects of this representation would at the same time exist—would not need a special act of synthesis of the manifold for the unity of consciousness. The human understanding, which merely thinks and does not intuit, does need such an act. But for the human understanding this principle is unavoidably the first, so much so that the human understanding cannot form the least concept of another possible understanding: either of one that itself intuited, or of one that possessed a sensible intuition, but of a kind different from the one grounded in space and time.

§ 18. WHAT THE OBJECTIVE UNITY OF SELF-CONSCIOUSNESS IS

Transcendental unity is objective; the empirical unity of consciousness through association is merely subjective.

[113] *The transcendental unity* of apperception is the unity through which all the manifold given in an intuition is united in a concept of the object. It is therefore called *objective*, and must be distinguished from the *subjective unity* of consciousness, which is a *determination of inner sense*, through which that manifold of intuition is empirically given for such a combination. Whether I can be *empirically* conscious of the manifold as simultaneous or as successive depends on circumstances or empirical conditions. Hence the empirical unity of consciousness, through association of representations, itself concerns an appearance and is wholly contingent. By contrast, the pure form of intuition in

time, merely as intuition in general that contains a given manifold, stands under the original unity of consciousness solely through the necessary relation of the manifold of intuition to the one "I think," and so through the pure synthesis of the understanding, which lies *a priori* at the basis of the empirical synthesis. That unity alone is objectively valid. The empirical unity of apperception, which we are not considering here, and which in any case is only derived from the former under given conditions *in concreto,* has only subjective validity. One person combines the representation of a certain word with one thing, another with a different thing; and the unity of consciousness in what is empirical is not necessary and universally valid with respect to what is given.

§ 19. THE LOGICAL FORM OF ALL JUDGMENTS CONSISTS IN THE OBJECTIVE UNITY OF APPERCEPTION OF THE CONCEPTS THEY CONTAIN

The little word "is" marks the objective unity of representations in a judgment.

I have never been able to satisfy myself with the explanation that logicians give of a judgment in general: it is, as they say, the representation of a relation between two concepts. I will not quarrel with them here about what is faulty in this explanation—that at best it fits only *categorical* judgments, but not hypothetical and disjunctive ones (since the latter contain a relation not of concepts but of judgments themselves)—even though a number of troublesome consequences have grown out of this over-

sight [114] of logic.[7] I note only that what this *relation* consists in is not determined here.

But if I investigate more precisely the relation of given cognitions in every judgment, and distinguish it, as belonging to the understanding, from the relation according to laws of the reproductive imagination (which has only subjective validity), then I find that a judgment is nothing other than the way of bringing given cognitions to the *objective* unity of apperception. That is the aim of the little relational word *is* in judgments: to distinguish the objective unity of given representations from the subjective. For this word designates their relation to original apperception and its *necessary unity*, even if the judgment itself is empirical, and hence contingent—for example, "Bodies are heavy." By this I do not mean that these representations belong *necessarily to one another* in the empirical intuition. I mean that they belong to one another *by virtue of the necessary unity* of apperception in the synthesis of intuitions—that is, according to principles of the objective determination of all representations insofar as cognition can come from them, all of which principles are derived from the fundamental principle of the transcendental unity of apperception. Only in this way does this relation become *a judgment*, that is, a relation that is *objectively valid* and is sufficiently distinguished from a relation of these same representations that would have only subjective validity, for example, according to laws of association. According to the latter, I could only say: "When I carry a body, I feel a pressure of weight"; but not: "It, the body, *is* heavy." For this is as much as to say that these two representations are combined in the object,

7 KANT'S NOTE. The long-winded doctrine of the four syllogistic figures concerns only categorical syllogisms. It is nothing more than an art of surreptitiously producing the illusion of more kinds of inference than that of the first figure, by hiding immediate inferences (*consequentiae immediatae*) among the premises of a pure syllogism. Yet this alone would not have brought it any particular success, had it not managed to bring categorical judgments into exclusive esteem, as those to which all others must be referable—which, however, according to § 9, is false.

TRANSLATOR'S NOTE. *Consequentiae immediatae* (Latin): "immediate inferences." Kant had made this criticism in his essay *The False Subtlety of the Four Syllogistic Figures* (1762).

that is, regardless of the state of the subject, and are not merely found together in perception (however often that perception may be repeated).

§ 20. ALL SENSIBLE INTUITIONS STAND UNDER THE CATEGORIES

The manifold of any given intuition is determined by the functions of judging, that is, the categories.

115 The manifold given in a sensible intuition necessarily falls under the original synthetic *unity* of apperception, because only through this unity is the unity of the intuition possible (§ 17). But the action of the understanding through which the manifold of given representations (whether intuitions or concepts) is brought under an apperception in general is the logical function of judgments (§ 19). All the manifold, therefore, insofar as it is given in one empirical intuition, is *determined* with respect to one of the logical functions of judging, by which, namely, it is brought to a consciousness in general. But the *categories* are nothing other than these very functions of judging, insofar as the manifold of a given intuition is determined with respect to them (§ 10). Hence the manifold in a given intuition also necessarily stands under categories.

§ 21. REMARK

The deduction so far abstracts from how the manifold is given; why our understanding is so remains unexplained.

A manifold that is contained in an intuition I call mine is represented, through the synthesis of the understanding, as belonging to the *necessary* unity of self-consciousness; and this happens through the category.[8] The category therefore indicates that the empirical consciousness of a given manifold of an intuition

8 KANT'S NOTE. The ground of proof rests on the represented *unity of intuition* through which an object is given. This unity always includes within itself a synthesis of the manifold given for an intuition, and it already contains the relation of this manifold to the unity of apperception.

stands under a pure self-consciousness *a priori*, just as empirical intuition stands under a pure sensible intuition, which likewise takes place *a priori*. In the above proposition, then, the beginning of a *deduction* of the pure concepts of the understanding has been made. Since the categories arise solely in the understanding, *independently of sensibility*, in this deduction I must still abstract from [116] the way in which the manifold for an empirical intuition is given, so as to attend only to the unity that the understanding adds to the intuition by means of the category. Later on (§ 26) it will be shown, from the way in which empirical intuition is given in sensibility, that its unity is none other than the unity that the category (according to the preceding § 20) prescribes to the manifold of a given intuition in general. Only then, when the category's validity *a priori* with respect to all objects of our senses has thus been explained, will the aim of the deduction be fully attained.

Yet there was one point from which I could not abstract in the above proof: namely, that the manifold for intuition must be *given* prior to the synthesis of the understanding and independently of it. How it is given, however, remains undetermined here. For suppose I wanted to think of an understanding that itself intuited—a divine understanding, say, which would not represent given objects, but through whose representation the objects themselves would at the same time be given or produced. With respect to such a cognition the categories would have no meaning at all. They are only rules for an understanding whose entire faculty consists in thinking, that is, in the act of bringing to the unity of apperception the synthesis of the manifold that has been given to it from elsewhere, in intuition. Such an understanding therefore *cognizes* nothing at all by itself, but only combines and orders the material for cognition, the intuition, which must be given to it through the object. But why our understanding has this peculiarity—that it achieves unity of apperception *a priori* only by means of the categories, and only through categories of precisely this kind and number—is as impossible to explain further as why we have precisely these

functions of judgment and no others, or why space and time are the only forms of our possible intuition.

§ 22. THE CATEGORIES SERVE ONLY FOR THE COGNITION OF OBJECTS OF EXPERIENCE

Thinking an object differs from cognizing it; cognition needs sensible intuition.

To *think* an object and to *cognize* an object are thus not the same. For cognition involves two components. [117] First, there is the concept through which an object in general is thought (the category); second, there is the intuition through which it is given. For if no corresponding intuition could be given to the concept at all, it would be a thought as far as its form is concerned, but without any object; and through it no cognition of anything whatever would be possible, because, so far as I could know, there would be nothing, and could be nothing, to which my thought could be applied. Now all intuition possible for us is sensible (Aesthetic). Hence for us the thinking of an object in general through a pure concept of the understanding can become cognition only insofar as this concept is related to objects of the senses. Sensible intuition is either pure intuition (space and time) or empirical intuition of that which is represented through sensation as immediately actual in space and time. By determining pure intuition we can obtain cognitions *a priori* of objects (in mathematics), but only as regards their form, as appearances; whether there can be things that must be intuited in this form still remains unsettled. Consequently all mathematical concepts are not by themselves cognitions, except insofar as one presupposes that there are things that can be presented to us only in accordance with the form of that pure sensible intuition. But *things in space* and *time* are given only insofar as they are perceptions (representations accompanied by sensation), and hence through empirical representation. Consequently, the pure concepts of the understanding, even when they are applied to intuitions *a priori* (as in mathematics), yield cognition only insofar as these intuitions—and so, by

means of them, the concepts of the understanding too—can be applied to empirical intuitions. Consequently the categories, by means of intuition, do not supply us with any cognition of things either, except through their possible application to *empirical intuition*. That is, they serve only for the possibility of *empirical cognition*. Such cognition, however, is called *experience*. Consequently the categories have no other use for the cognition of things than insofar as these are taken as objects of possible experience.

§ 23. THE LIMITS OF THE CATEGORIES

Beyond sensible intuition the categories are empty forms of thought without objective reality.

The above proposition is of the greatest importance. For it determines the boundaries of the use of the pure concepts of the understanding with [118] respect to objects, just as the Transcendental Aesthetic determined the boundaries of the use of the pure form of our sensible intuition. Space and time, as conditions of the possibility of how objects can be given to us, are valid no further than for objects of the senses, and hence only of experience. Beyond these boundaries they represent nothing at all; for they exist only in the senses and have no actuality outside them. The pure concepts of the understanding are free from this limitation and extend to objects of intuition in general, whether that intuition is similar to ours or not, provided only that it is sensible and not intellectual. But this further extension of the concepts beyond *our* sensible intuition is of no help to us. For they are then empty concepts of objects—objects about which we cannot judge at all, through those concepts, whether they are so much as possible. They are mere forms of thought without objective reality, because we have no intuition at hand to which the synthetic unity of apperception, which is all those concepts contain, could be applied, so that they could determine an object. *Our* sensible and empirical intuition alone can provide them with sense and meaning.

If, then, one assumes an object of a *non-sensible* intuition as given, one can certainly represent it through all the predicates that already lie in the presupposition *that nothing belonging to sensible intuition pertains to it*: thus, that it is not extended or in space, that its duration is not a time, that no change (a succession of determinations in time) is to be met with in it, and so on. But it is not really cognition if I merely indicate what the intuition of the object *is not,* without being able to say what it does contain. For then I have not represented the possibility of an object for my pure concept of the understanding at all, since I could give no intuition corresponding to it, but could only say that ours does not hold for it. The main point here, however, is that not even a single category could be applied to such a something. Take, for example, the concept of a substance, that is, of something that can exist as a subject but never as a mere predicate. Of this concept I do not know at all whether there could be any thing corresponding to this determination of thought, unless empirical intuition gave me the case for its application. But more on this later.

§ 24. THE APPLICATION OF THE CATEGORIES TO OBJECTS OF THE SENSES IN GENERAL

The imagination's figurative synthesis applies the categories to our intuition; inner sense shows us only as we appear.

[119] The pure concepts of the understanding relate, through the mere understanding, to objects of intuition in general, leaving it undetermined whether this intuition is ours or some other kind, provided only that it is sensible. But for that very reason they are mere *forms of thought,* through which no determinate object is yet cognized. The synthesis or combination of the manifold in them related merely to the unity of apperception. It was thereby the ground of the possibility of cognition *a priori* insofar as such cognition rests on the understanding, and so it was not only transcendental but also purely intellectual. But in us a certain form of sensible intuition *a priori* lies at the foundation, which rests on the receptivity of our capacity for representation (sens-

ibility). Therefore the understanding, as spontaneity, can determine inner sense through the manifold of given representations in accordance with the synthetic unity of apperception. It can thus think synthetic unity of the apperception of the manifold of *sensible intuition a priori*, as the condition under which all objects of our (human) intuition must necessarily stand. In this way the categories, as mere forms of thought, acquire objective reality, that is, application to objects that can be given to us in intuition—but only as appearances; for it is only of appearances that we are capable of intuition *a priori*.

This *synthesis* of the manifold of sensible intuition, which is possible and necessary *a priori*, can be called *figurative* (*synthesis speciosa*), to distinguish it from the synthesis that would be thought in the mere category with respect to the manifold of an intuition in general, and that is called combination by the understanding (*synthesis intellectualis*). Both are *transcendental*, not merely because they themselves proceed *a priori*, but also because they ground the possibility of other cognition *a priori*.[9]

But figurative synthesis, when it is directed merely at the originally synthetic unity of apperception—that is, at the transcendental unity that is thought in the categories—must be called the *transcendental synthesis of the imagination*, to distinguish it from merely intellectual combination. *Imagination* is the faculty of representing [120] an object in intuition even *without its presence*. Now since all our intuition is sensible, the imagination belongs to *sensibility*, because of the subjective condition under which alone it can give a corresponding intuition to the concepts of the understanding. But its synthesis is an exercise of spontaneity, which is determining and not, like sense, merely determinable, and which can therefore determine sense *a priori* as regards its form in accordance with the unity of apperception. To that extent the imagination is a faculty of determining sensibility *a priori*, and its synthesis of intuitions *in accordance*

9 *Synthesis speciosa* (Latin): "figurative synthesis," one that works through images or shapes; *synthesis intellectualis*: "intellectual synthesis," carried out by the understanding alone.

with the categories must be the transcendental synthesis of the *imagination*. This synthesis is an effect of the understanding on sensibility, and the understanding's first application (and at the same time the ground of all its other applications) to objects of the intuition possible for us. As figurative, it is distinct from the intellectual synthesis, which takes place without any imagination, merely through the understanding. Now insofar as the imagination is spontaneity, I also sometimes call it the *productive* imagination, and thereby distinguish it from the *reproductive* imagination. The synthesis of the latter is subject solely to empirical laws, namely those of association; it therefore contributes nothing to explaining the possibility of cognition *a priori*, and for that reason belongs not in transcendental philosophy but in psychology.

This is now the place to make intelligible the paradox that must have struck everyone in the exposition of the form of inner sense (§ 6): namely, how inner sense presents even ourselves to consciousness only as we appear to ourselves, not as we are in ourselves. The reason is that we intuit ourselves only as we are inwardly *affected*. This seems to be contradictory, since we would then have to relate to ourselves as passive. That is why, in systems of psychology, *inner sense* is usually passed off as the same thing as the faculty of *apperception*—which we carefully distinguish.

What determines inner sense is the understanding and its original faculty of combining the manifold of intuition, that is, of bringing it under one apperception (the very thing on which the understanding's own possibility rests). Now in us human beings the understanding is not itself a [121] faculty of intuitions. Even if intuition were given in sensibility, the understanding could not take it up *into itself* so as to combine, as it were, the manifold of *its own* intuition. Hence its synthesis, considered by itself alone, is nothing other than the unity of the act of which it is conscious as such an act even without sensibility, but through which it is itself able to determine sensibility inwardly with respect to the manifold that may be given to it according to the form of sensib-

ility's intuition. Under the name of a *transcendental synthesis of the imagination*, therefore, the understanding exercises on the *passive* subject, whose *faculty* it is, that act of which we rightly say that inner sense is affected by it. Apperception and its synthetic unity are so far from being the same as inner sense that apperception, as the source of all combination, is directed instead at the manifold of *intuitions in general*, and under the name of the categories, prior to all sensible intuition, at objects in general. Inner sense, by contrast, contains the mere *form* of intuition, but without combination of the manifold in it, and so as yet contains no *determinate* intuition at all. Such intuition is possible only through the consciousness of the determination of inner sense by the transcendental act of the imagination (the synthetic influence of the understanding on inner sense), which I have called figurative synthesis.

We also perceive this in ourselves at all times. We cannot think a line without *drawing* it in thought, or think a circle without *describing* it. We cannot represent the three dimensions of space at all without placing three lines perpendicular to one another from the same point. And we cannot represent even time unless, in *drawing* a straight line (which is to be the outer figurative representation of time), we attend merely to the act of the synthesis of the manifold by which we successively determine inner sense, and thereby to the succession of this determination in inner sense. Motion, as an act of the subject (not as a determination of an object),[10] and consequently the synthesis [122] of the manifold in space—if we abstract from space and attend merely to the act by which we determine *inner sense* in accordance with its form—is what first produces the very concept of succession. The understanding, therefore, does not *find* some such combination of the manifold already in inner sense, but

10 KANT'S NOTE. Motion of an *object* in space does not belong in a pure science, and so not in geometry either, because that something is movable cannot be cognized *a priori*, but only through experience. But motion as the *describing* of a space is a pure act of the successive synthesis of the manifold in outer intuition in general through the productive imagination, and belongs not only to geometry but even to transcendental philosophy.

produces it, by *affecting* inner sense. How, then, can the I that thinks be distinct from the I that intuits itself (since I can represent still other kinds of intuition, at least as possible), and yet be identical with the latter as the same subject? How, that is, can I say: *I*, as intelligence and *thinking* subject, cognize *myself* as an object that is *thought*, insofar as I am also given to myself in intuition—only, like other phenomena, not as I am for the understanding but as I appear to myself? This involves neither more nor less difficulty than how I can be an object to myself at all, and in particular an object of intuition and of inner perceptions. But that it really must be so can be clearly shown, once we accept space as a mere pure form of the appearances of the outer senses. For we cannot represent time, which is not an object of outer intuition at all, except under the image of a line, insofar as we draw it; without this way of presenting it, we could not cognize the unity of its dimension at all. Likewise, we must always take the determination of the length of time, or of the positions in time, for all inner perceptions from what outer things present to us as changeable. Consequently we must order the determinations of inner sense as appearances in time in exactly the same way as we order those of the outer senses in space; and hence, if we grant of the outer senses that through them we cognize objects only insofar as we are affected from without, we must also concede of inner sense that through it we intuit ourselves only as we are inwardly affected *by ourselves*: that is, as far as inner intuition is concerned, we cognize our own subject only as appearance, but not as it is in itself.[11]

11 KANT'S NOTE. I do not see how anyone can find so much difficulty in the idea that inner sense is affected by ourselves. Every act of *attention* can give us an example of it. In attention, the understanding always determines inner sense, in accordance with the combination it thinks, to an inner intuition that corresponds to the manifold in the synthesis of the understanding. How much the mind is commonly affected by this, everyone will be able to perceive in himself.

§ 25. CONSCIOUSNESS OF ONESELF

In apperception I am conscious only that I am, not of how I am in myself.

[123] In the transcendental synthesis of the manifold of representations in general, on the other hand, and hence in the synthetic original unity of apperception, I am conscious of myself not as I appear to myself, nor as I am in myself, but only that I am. This *representation* is a *thinking*, not an *intuiting*. Now for the *cognition* of ourselves we need, besides the act of thinking that brings the manifold of every possible intuition to the unity of apperception, a determinate kind of intuition through which this manifold is given. Therefore, although my own existence is not appearance (still less mere illusion), the determination of my existence[12] can take place only in accordance with the form of inner sense, according to the particular way in which the manifold I combine is given in inner intuition. Accordingly I have no *cognition* of myself *as I am*, but merely as I *appear* to myself. The consciousness of oneself is thus far from being a cognition of oneself, notwithstanding all the categories, which constitute the thinking of an *object in general* through combination of the manifold in one apperception. To cognize an object distinct from me, I need, besides the thinking of an object in general (in the category), an intuition through which I determine that general concept. In just the same way, to cognize myself I need, besides consciousness—besides the fact that I think myself—an [124] intu-

12 KANT'S NOTE. The "I think" expresses the act of determining my existence. My existence is thus already given by it, but the way in which I am to determine it—that is, to posit in me the manifold belonging to it—is not yet given by it. For that, self-intuition is required, which has at its foundation a form given *a priori*, namely time, which is sensible and belongs to the receptivity of the determinable. Now suppose I do not have yet another self-intuition that gives the *determining* in me (of whose spontaneity alone I am conscious) prior to the act of *determining*, in the same way that *time* gives the determinable. Then I cannot determine my existence as that of a self-active being; instead I merely represent to myself the spontaneity of my thinking, that is, of the determining, and my existence always remains determinable only sensibly, that is, as the existence of an appearance. Yet this spontaneity is the reason I call myself an *intelligence*.

ition of the manifold in me through which I determine this thought; and I exist as an intelligence that is conscious merely of its faculty of combination. But with respect to the manifold that it is to combine, this intelligence is subject to a limiting condition, which it calls inner sense: it can make that combination intuitable only according to relations of time, which lie entirely outside the concepts of the understanding proper. Hence it can still cognize itself only as it merely appears to itself with regard to an intuition (one that is not intellectual and cannot be given by the understanding itself), not as it would cognize itself if its *intuition* were intellectual.

§ 26. TRANSCENDENTAL DEDUCTION OF THE UNIVERSALLY POSSIBLE USE OF THE PURE CONCEPTS OF THE UNDERSTANDING IN EXPERIENCE

All synthesis of apprehension stands under the categories, so the understanding prescribes laws to nature.

In the *metaphysical deduction* the origin of the categories *a priori* in general was established through their complete agreement with the universal logical functions of thinking. In the *transcendental* deduction, their possibility as cognitions *a priori* of objects of an intuition in general was set out (§§ 20, 21). Now we are to explain the possibility of cognizing *a priori*, *through categories*, whatever objects *may ever come before our senses*—and cognizing them not as regards the form of their intuition, but as regards the laws of their combination; the possibility, therefore, of prescribing laws to nature, as it were, and even of making nature possible. For without this aptitude of the categories it would not be evident how everything that may ever come before our senses must stand under laws that arise *a priori* from the understanding alone.

First of all, I note that by the *synthesis of apprehension* I understand the putting together of the manifold in an empirical intuition, through which perception—that is, empirical consciousness of the intuition (as appearance)—becomes possible.

In the representations of space and time we have *forms* of outer as well as inner sensible intuition *a priori*, and the synthesis of apprehension of the manifold of appearance must always conform to these, since it can itself take place only in accordance with this form. But space and time are represented *a priori* not merely as *forms* of sensible intuition, [125] but as *intuitions* themselves (which contain a manifold), and therefore with the determination of the *unity* of this manifold in them (see the Transcendental Aesthetic).[13] Thus *unity of the synthesis* of the manifold outside or within us, and hence also a *combination* to which everything that is to be represented as determinate in space or time must conform, is already given *a priori*, along with (not in) these intuitions, as a condition of the synthesis of all *apprehension*. But this synthetic unity can be none other than the unity of the combination of the manifold of a given *intuition in general* in an original consciousness, in accordance with the categories, only applied to our *sensible intuition*. Consequently all synthesis, through which even perception becomes possible, stands under the categories. And since experience is cognition through connected perceptions, the categories are conditions of the possibility of experience, and so are also valid *a priori* of all objects of experience.

So if, for example, I make the empirical intuition of a house into a perception through apprehension of its manifold, the *necessary unity* of space and of outer sensible intuition in general lies at the foundation of my doing so, and I draw, as it were, the house's shape in accordance with this synthetic unity of the

13 KANT'S NOTE. Space represented as an *object* (as is really required in geometry) contains more than the mere form of intuition. It contains the *comprehension* of the manifold given according to the form of sensibility into an *intuitive* representation, so that the *form of intuition* gives merely a manifold, whereas the *formal intuition* gives unity of representation. In the Aesthetic I counted this unity simply as belonging to sensibility, only in order to note that it precedes every concept—although it does presuppose a synthesis that does not belong to the senses, but through which all concepts of space and time first become possible. For since it is through this synthesis (the understanding determining sensibility) that space or time are first *given* as intuitions, the unity of this intuition *a priori* belongs to space and time, and not to the concept of the understanding (§ 24).

manifold in space. But if I abstract from the form of space, this very same synthetic unity has its seat in the understanding. It is the category of the synthesis of the homogeneous in an intuition in general, that is, the [126] category of *quantity*, to which that synthesis of apprehension—the perception—must therefore conform throughout.[14][15]

If (to take another example) I perceive the freezing of water, I apprehend two states (fluidity and solidity) as standing in a relation of time to each other. But in time, which I lay at the foundation of the appearance as inner *intuition*, I necessarily represent synthetic *unity* of the manifold. Without this unity that relation could not be given in an intuition as *determinate* (with respect to temporal sequence). Now this synthetic unity, as the *a priori* condition under which I combine the manifold of an intuition in general, is—if I abstract from the constant form of my inner intuition, time—the category of *cause*. Through this category, when I apply it to my sensibility, *I determine everything that happens in time in general as regards its relation*. Thus the apprehension in such an event, and hence the event itself as regards possible perception, stands under the concept of the *relation of effects and causes*; and so in all other cases.

Categories are concepts that prescribe laws *a priori* to appearances, and hence to nature as the sum total of all appearances (*natura materialiter spectata*). The question now arises: since the categories are not derived from nature and do not conform to it as their model (for then they would be merely empirical), how are we to comprehend that nature must conform to them? That is, how can they determine *a priori* the combination of the mani-

14 KANT'S NOTE. In this way it is proved that the synthesis of apprehension, which is empirical, must necessarily conform to the synthesis of apperception, which is intellectual and contained wholly *a priori* in the category. It is one and the same spontaneity that, in the one case under the name of imagination and in the other under the name of understanding, brings combination into the manifold of intuition.

15 Kant's word is *Größe* (magnitude); where it names the category heading it is rendered "quantity."

fold of nature without taking it from nature? Here is the solution to this riddle.[16]

It is no more strange that the laws of appearances in nature must agree with the understanding and its form *a priori*—that is, with its faculty of *combining* the manifold in general—than that appearances themselves must agree with the form of sensible intuition *a priori*. [127] For laws exist in appearances just as little as appearances exist in themselves. Laws exist only relative to the subject in which the appearances inhere, insofar as it has understanding; just as appearances exist only relative to that same being, insofar as it has senses. To things in themselves, their lawfulness would necessarily belong even apart from an understanding that cognized them. But appearances are only representations of things that exist uncognized as to what they may be in themselves. As mere representations, however, they stand under no law of connection at all except the one that the connecting faculty prescribes. Now what connects the manifold of sensible intuition is imagination, which depends on the understanding for the unity of its intellectual synthesis, and on sensibility for the manifoldness of apprehension. All possible perception depends on the synthesis of apprehension, and this empirical synthesis itself depends on the transcendental one, and hence on the categories. So all possible perceptions—and therefore everything that can ever reach empirical consciousness, that is, all appearances of nature—must, as regards their combination, stand under the categories. On these categories nature (regarded merely as nature in general) depends, as on the original ground of its necessary lawfulness (as *natura formaliter spectata*). But the pure faculty of understanding is not sufficient to prescribe *a priori* to appearances, through mere categories, any laws beyond those on which a *nature in general*, as the lawfulness of appearances in space and time, rests. Particular laws, because they concern empirically determined appear-

16 *Natura materialiter spectata* (Latin): "nature regarded materially," as the sum of its contents; its counterpart, *natura formaliter spectata* ("nature regarded formally," as lawfulness), follows below.

ances, *cannot be completely derived* from the categories, although they all stand under them. Experience must be added in order to come to know particular laws *at all*; but about experience in general, and about what can be cognized as an object of experience, only those laws *a priori* give instruction.

§ 27. RESULT OF THIS DEDUCTION

Cognition a priori is possible only of objects of possible experience; the categories make experience possible.

We cannot *think* any object except through categories; we cannot *cognize* any object that is thought except through intuitions that correspond to those concepts. Now all our intuitions [128] are sensible, and this cognition, insofar as its object is given, is empirical. But empirical cognition is experience. Consequently *no cognition a priori is possible for us except solely of objects of possible experience*.[17]

But this cognition, which is limited solely to objects of experience, is not for that reason all borrowed from experience. As regards both the pure intuitions and the pure concepts of the understanding, these are elements of cognition that are found in us *a priori*. Now there are only two ways in which a *necessary* agreement of experience with the concepts of its objects can be thought: either experience makes these concepts possible, or these concepts make experience possible. The first does not hold for the categories (nor for pure sensible intuition). For they are concepts *a priori*, and hence independent of experience (to assert an empirical origin for them would be a kind of *generatio*

17 KANT'S NOTE. Lest anyone take hasty offense at the feared harmful consequences of this proposition, I will only recall that in *thinking*, the categories are not limited by the conditions of our sensible intuition, but have an unbounded field; only the *cognizing* of what we think—the determining of the object—requires intuition. Where intuition is lacking, the thought of the object can still have its true and useful consequences for the subject's *use of reason*. That use, however, cannot be set out here yet, because it is directed not always at the determination of the object, and hence at cognition, but also at the determination of the subject and its willing.

aequivoca).[18] Consequently only the second way remains (a system of the *epigenesis* of pure reason, as it were): namely, that the categories, on the side of the understanding, contain the grounds of the possibility of all experience in general. But how they make experience possible, and what principles of its possibility they provide when applied to appearances, the following chapter, on the transcendental use of the power of judgment, will teach more fully.[19]

Suppose someone wanted to propose a middle way between the two only ways just named: namely, that the categories are neither *self-thought* first principles *a priori* of our cognition nor drawn from experience, but subjective [129] predispositions for thinking, implanted in us together with our existence, and so arranged by our author that their use agrees exactly with the laws of nature along which experience runs (a kind of *preformation system* of pure reason). Then—besides the fact that with such a hypothesis no end can be seen to how far one might carry the presupposition of predetermined predispositions to future judgments—the following would be decisive against this middle way: in such a case the categories would lack the *necessity* that belongs essentially to their concept. For example, the concept of cause, which asserts the necessity of a consequence under a presupposed condition, would be false if it rested only on an arbitrary subjective necessity, implanted in us, of combining certain empirical representations according to such a rule of relation. I could not say: the effect is combined with the cause in the object (that is, necessarily), but only: I am so constituted that I cannot think this representation otherwise than as so connected. And that is precisely what the skeptic most wishes for. For then all our insight, through the supposed objective validity of our judgments, is nothing but sheer illusion; nor would there be any lack of people who would not admit to this subjective necessity

18 *Generatio aequivoca* (Latin): "equivocal generation," the supposed spontaneous generation of living things from lifeless matter.
19 Epigenesis: the biological theory that an organism develops from an undifferentiated germ, rather than unfolding from preformed parts ("preformation," invoked in the next paragraph).

(which must be felt) in themselves. At the very least one could not quarrel with anyone about what rests merely on the way his subject is organized.

BRIEF OUTLINE OF THIS DEDUCTION

A one-paragraph summary of the whole deduction.

The deduction is the presentation of the pure concepts of the understanding (and with them of all theoretical cognition *a priori*) as principles of the possibility of experience; of experience, in turn, as the *determination* of appearances in space and time *in general*; and finally, of this determination as derived from the principle of the *original* synthetic unity of apperception, as the form of the understanding in relation to space and time as original forms of sensibility.

Only up to this point do I consider the division into numbered sections *necessary*, because we were dealing with the elementary concepts. Now that we want to set out [130] their use, the exposition may proceed in continuous connection without such divisions.

Schematism; Axioms of Intuition; Anticipations of Perception

How the categories are applied to appearances in time, and the first principles of the understanding.

BOOK TWO: THE ANALYTIC OF PRINCIPLES

The analytic of principles is a canon teaching the power of judgment to apply the categories to appearances.

General logic is built on a ground plan that coincides exactly with the division of the higher cognitive faculties. These are: *understanding*, *power of judgment*, and *reason*. In its analytic, that doctrine therefore deals with *concepts*, *judgments*, and *inferences*, precisely in accordance with the functions and the order of those powers of the mind, which are comprehended under the broad designation of understanding in general.

Since this merely formal logic abstracts from all content of cognition (whether pure or empirical) and concerns itself merely with the form of thinking (of discursive cognition) in general, it can also include in its analytic part the canon for reason. For the form of reason has its secure precept, which can be understood *a priori*, without taking into account the particular nature of the cognition employed, through mere analysis of the actions of reason into their moments.

Transcendental logic, since it is restricted to a determinate content—namely, merely to pure cognitions *a priori*—cannot imitate general logic in this division. For it turns out that the *transcendental use of reason* is not objectively valid at all, and hence does not belong to the *logic of truth*, that is, to the analytic.

Rather, as a *logic of illusion*, it requires a special part of the scholastic system of doctrine, under the name of transcendental *dialectic*.

Understanding and the power of judgment accordingly have their canon of objectively valid, and hence true, use in transcendental logic, and so belong in its analytic part. But *reason*, in its attempts to establish something *a priori* about objects and to extend cognition [131] beyond the boundaries of possible experience, is wholly and entirely *dialectical*. Its illusory assertions do not fit at all into a canon of the kind the analytic is supposed to contain.

The *analytic of principles* will accordingly be solely a canon for the *power of judgment*, one that teaches it to apply to appearances the concepts of the understanding, which contain the condition for rules *a priori*. For this reason, in taking the actual *principles of the understanding* as my theme, I shall use the designation *doctrine of the power of judgment*, which marks out this task more precisely.

EINLEITUNG. VON DER TRANSSCENDENTALEN URTHEILSKRAFT ÜBERHAUPT.

If the understanding in general is defined as the faculty of rules, then the power of judgment is the faculty of *subsuming* under rules, that is, of distinguishing whether something stands under a given rule (*casus datae legis*) [a case of the given law] or not. General logic contains no precepts at all for the power of judgment, and cannot contain any. For *since it abstracts from all content of cognition*, nothing is left to it but the task of analytically setting out the mere form of cognition in concepts, judgments, and inferences, and thereby establishing formal rules for all use of the understanding. Now if it wanted to show in general how one ought to subsume under these rules, that is, distinguish whether something stands under them or not, this could be done only by means of yet another rule. But this rule, precisely because it is a rule, requires fresh instruction of the power of judgment. And so it becomes clear that, although the under-

standing is capable of being instructed and equipped by rules, the power of judgment is a special talent, which cannot be taught at all but only practiced. This is also why the power of judgment is the specific quality of so-called mother wit, the lack of which no school can make good. For although a school can offer a limited understanding rules in plenty, borrowed from the insight of others, and graft them onto it, so to speak, the faculty of using them correctly must belong to the pupil himself; and in the absence of such a natural gift, no rule that one might [132] prescribe to him for this purpose is safe from misuse.[1] A physician, a judge, or a statesman may therefore have many fine medical, legal, or political rules in his head—so many that he can himself become a thorough teacher of them—and yet easily go wrong in applying them. This may be because he lacks natural power of judgment (though not understanding): he can understand the universal *in abstracto* but cannot distinguish whether a case *in concreto* falls under it. Or it may be because he has not been sufficiently trained for this kind of judgment through examples and actual practice. This, too, is the one great use of examples: they sharpen the power of judgment. For as regards the correctness and precision of the understanding's insight, examples usually do it some harm instead. They only rarely fulfil the condition of the rule adequately (as *casus in terminis*) [cases exactly in point]. Besides, they often weaken the effort of the understanding to grasp rules in their adequacy, in general and independently of the particular circumstances of experience, and so in the end they accustom us to use rules more as formulas than as principles. Examples are thus the baby walker of the power of judg-

1 KANT'S NOTE. Lack of the power of judgment is really what is called stupidity, and such a failing cannot be remedied at all. A dull or limited mind, which lacks nothing but an adequate degree of understanding and concepts of its own, can very well be equipped through learning, even to the point of erudition. But since in such cases the power of judgment (the *secunda Petri* [second part of Peter]) is usually lacking too, it is nothing unusual to meet very learned men who, in the use of their science, frequently reveal that incurable lack.

TRANSLATOR'S NOTE. *Secunda Petri*: the second part of the logic of Petrus Ramus (1515–1572), which treated judgment; hence a proverbial name for the power of judgment.

ment, which no one who lacks the natural talent for judgment can ever do without.

But although *general logic* can give no precepts to the power of judgment, the case is quite different with *transcendental* logic—so much so that it seems the proper business of the latter is to correct and secure the power of judgment in the use of the pure understanding by determinate rules. For as doctrine—that is, for extending the understanding in the field of pure cognitions *a priori*—philosophy seems not to be needed at all, or rather to be ill-suited, since after all previous attempts little or no ground has been gained by it. But as [133] critique—to prevent the missteps of the power of judgment (*lapsus judicii*) [lapses of judgment] in the use of the few pure concepts of the understanding that we have—philosophy is summoned with all its acuity and art of examination (although its use is then only negative).

Transcendental philosophy, however, has this peculiarity: besides the rule (or rather the universal condition for rules) that is given in the pure concept of the understanding, it can at the same time indicate *a priori* the case to which the rules are to be applied. The reason for the advantage it has in this respect over all other instructive sciences (except mathematics) lies precisely in this: it deals with concepts that are supposed to relate to their objects *a priori*. Hence their objective validity cannot be demonstrated *a posteriori*, for that would leave their distinctive dignity wholly untouched. Instead, transcendental philosophy must at the same time set out, in universal but sufficient marks, the conditions under which objects can be given in agreement with those concepts. Otherwise the concepts would be without any content, and hence mere logical forms rather than pure concepts of the understanding.

This *transcendental doctrine of the power of judgment* will now contain two chapters. The *first* deals with the sensible condition under which alone pure concepts of the understanding can be used, that is, with the schematism of the pure understanding. The *second* deals with the synthetic judgments that flow *a priori* from pure concepts of the understanding under these condi-

tions and lie at the foundation of all other cognitions *a priori*, that is, with the principles of the pure understanding.

CHAPTER ONE: THE SCHEMATISM OF THE PURE CONCEPTS OF THE UNDERSTANDING

A transcendental time-determination mediates between the categories and appearances.

In every subsumption of an object under a concept, the representation of the object must be *homogeneous* with the concept; that is, the [134] concept must contain what is represented in the object to be subsumed under it. For that is exactly what the expression means: an object is contained under a concept. Thus the empirical concept of a *plate* is homogeneous with the pure geometrical concept of a *circle*, since the roundness that is thought in the former can be intuited in the latter.

But pure concepts of the understanding, compared with empirical intuitions (indeed with sensible intuitions of any kind), are entirely heterogeneous, and can never be encountered in any intuition. How, then, is the *subsumption* of intuitions under pure concepts—and hence the *application* of a category to appearances—possible, since no one will say that a category, for example, causality, can also be intuited through the senses and is contained in the appearance? This question, so natural and so important, is really what makes a transcendental doctrine of the power of judgment necessary: its task is to show how *pure concepts of the understanding* can be applied to appearances in general. In all other sciences, where the concepts through which the object is thought in general are not so different and heterogeneous from those that represent it *in concreto*, as it is given, there is no need to give a special discussion of the application of the former to the latter.

Now it is clear that there must be a third thing, which must be homogeneous with the category on the one hand and with the appearance on the other, and which makes possible the application of the former to the latter. This mediating representation must be pure (without anything empirical), and yet must be

intellectual on the one hand and *sensible* on the other. Such a representation is the *transcendental schema*.

The concept of the understanding contains pure synthetic unity of the manifold in general. Time, as the formal condition of the manifold of inner sense, and hence of the connection of all representations, contains a manifold *a priori* in pure intuition. Now a transcendental time-determination is homogeneous with the *category* (which constitutes its unity) insofar as it is *universal* and rests on a rule *a priori*. On the other hand, it is homogeneous with the *appearance* insofar as *time* is contained in every empirical representation of the manifold. Hence an application of the category to appearances will be possible by means of the transcendental [135] time-determination, which, as the schema of the concepts of the understanding, mediates the subsumption of appearances under the category.

After what was shown in the deduction of the categories, no one, I hope, will be in doubt how to decide the question whether these pure concepts of the understanding are of merely empirical or also of transcendental use: that is, whether, as conditions of a possible experience, they relate *a priori* solely to appearances, or whether, as conditions of the possibility of things in general, they can be extended to objects in themselves (without any restriction to our sensibility). For we have seen the following. First, concepts are quite impossible, and can have no meaning whatever, unless an object is given either to them or at least to the elements of which they consist; hence they cannot apply at all to things in themselves (without regard to whether and how these may be given to us). Further, the only way in which objects are given to us is the modification of our sensibility. Finally, pure concepts *a priori*, besides the function of the understanding in the category, must also contain formal conditions *a priori* of sensibility (specifically, of inner sense), which contain the universal condition under which alone the category can be applied to any object. We shall call this formal and pure condition of sensibility, to which the concept of the understanding is restricted in its use, the *schema* of this concept of the under-

standing; and we shall call the procedure of the understanding with these schemata the *schematism* of the pure understanding.

The schema is in itself always only a product of the imagination. But since the synthesis of the imagination aims not at any single intuition but solely at unity in the determination of sensibility, the schema must nevertheless be distinguished from the image. Thus if I set down five points one after another, ..., this is an image of the number five. If, on the other hand, I merely think a number in general, which might be five or a hundred, this thinking is more the representation of a method for representing a multitude (for example, a thousand) in an image in accordance with a certain concept than it is this image itself—an image that, in the latter case, I could hardly survey and compare with the concept. Now this representation of a universal procedure of the imagination for providing a concept with its image is what I call the schema for this concept.

[136] In fact, it is not images of objects but schemata that lie at the foundation of our pure sensible concepts. No image of a triangle would ever be adequate to the concept of a triangle in general. For it would never attain the universality of the concept, which makes the concept valid for all triangles, right-angled, oblique-angled, etc., but would always be restricted to only one part of this sphere. The schema of the triangle can never exist anywhere but in thought, and it signifies a rule of the synthesis of the imagination with respect to pure shapes in space. Still less does an object of experience, or an image of it, ever attain the empirical concept. Rather, the empirical concept always relates immediately to the schema of the imagination, as a rule for the determination of our intuition in accordance with a certain universal concept. The concept of a dog signifies a rule according to which my imagination can draw the shape of a four-footed animal in general, without being restricted to any single particular shape that experience offers me, or even to any possible image that I can present *in concreto*. This schematism of our understanding with respect to appearances and their mere form is a hidden art in the depths of the human soul, whose true

workings we will hardly ever wrest from nature and lay unveiled before our eyes. This much only can we say: the *image* is a product of the empirical faculty of productive imagination; the *schema* of sensible concepts (such as figures in space) is a product and, as it were, a monogram of pure imagination *a priori*, through which and according to which images first become possible. These images, however, must always be connected with the concept only by means of the schema that they designate, and in themselves they are never fully congruent with the concept. By contrast, the schema of a pure concept of the understanding is something that cannot be brought into any image at all. It is only the pure synthesis in accordance with a rule of unity according to concepts in general, which the category expresses. It is a transcendental product of the imagination, which concerns the determination of inner sense in general, according to conditions of its form (time), with respect to all representations, insofar as these are to hang together *a priori* in one concept in accordance with the unity of apperception.

Rather than dwell on a dry and tedious analysis of what is required for transcendental schemata of pure concepts of the understanding [137] in general, we would prefer to present them in the order of the categories and in connection with them.

THE SCHEMATA OF THE CATEGORIES

Kant gives the schema of each category: number, degree, persistence, succession, simultaneity, and time itself.

The pure image of all magnitudes (*quantorum*) [of quanta] for outer sense is space; that of all objects of the senses in general is time. But the pure *schema of magnitude* (*quantitatis*) [of quantity], as a concept of the understanding, is *number*: a representation that comprises the successive addition of one to one (of the same kind). Number is therefore nothing other than the unity of the synthesis of the manifold of a homogeneous intuition in general, a unity that arises because I generate time itself in the apprehension of the intuition.

Reality, in the pure concept of the understanding, is that which corresponds to a sensation in general—that, therefore, whose concept in itself indicates a being (in time). Negation is that whose concept represents a not-being (in time). The opposition of the two thus takes place in the distinction of one and the same time as either a filled or an empty time. Since time is only the form of intuition, and hence of objects as appearances, what in objects corresponds to sensation is the transcendental matter of all objects as things in themselves (thinghood, reality). Now every sensation has a degree or magnitude, by which it can fill the same time—that is, inner sense with respect to the same representation of an object—more or less, until it ceases in nothing (= 0 = *negatio*) [negation]. Hence there is a relation and connection—or rather a transition from reality to negation—which makes every reality representable as a quantum. And the schema of a reality, as the quantity of something insofar as it fills time, is precisely this continuous and uniform generation of reality in time, as one descends in time from a sensation that has a certain degree to its vanishing, or gradually ascends from negation to the sensation's magnitude.

The schema of substance is the persistence of the real in time, that is, the representation of the real as a substratum of empirical time-determination in general, which therefore remains while everything else changes. (Time does not elapse; rather, the existence of what is changeable elapses in it. To time, then, which is itself unchangeable and abiding, there corresponds in appearance what is unchangeable in existence, that is, substance; and only in relation to substance can the succession and simultaneity of appearances be determined with respect to time.)

[138] The schema of cause, and of the causality of a thing in general, is the real upon which, whenever it is posited at will, something else always follows. It therefore consists in the succession of the manifold, insofar as that succession is subject to a rule.

The schema of community (reciprocal action), or of the reciprocal causality of substances with respect to their accidents, is

the simultaneity of the determinations of the one with those of the other, according to a universal rule.

The schema of possibility is the agreement of the synthesis of different representations with the conditions of time in general (for example, that opposites cannot exist in one thing at the same time, but only one after the other). It is therefore the determination of the representation of a thing at some time or other.

The schema of actuality is existence at a determinate time.

The schema of necessity is the existence of an object at all times.

Now one sees from all this what the schema of each category contains and makes representable. The schema of quantity contains the generation (synthesis) of time itself in the successive apprehension of an object. The schema of quality contains the synthesis of sensation (perception) with the representation of time, or the filling of time. The schema of relation contains the relation of perceptions to one another at all times (that is, according to a rule of time-determination). Finally, the schema of modality and its categories contains time itself as the correlate of the determination of an object—whether and how it belongs to time. The schemata are therefore nothing but *time-determinations a priori* according to rules. Following the order of the categories, these concern the *time-series*, the *time-content*, the *time-order*, and finally the *time-totality* with respect to all possible objects.

From this it is now clear that the schematism of the understanding, by means of the transcendental synthesis of the imagination, comes down to nothing other than the unity of all the manifold of intuition in inner sense, and so indirectly to the unity of apperception as the function that corresponds to inner sense (a receptivity). Thus the schemata of the pure concepts of the understanding are the true and only conditions for providing these concepts with a relation to objects, and hence with *meaning*. And so the categories are, in the end, of [139] no other use than a possible empirical one. For they serve merely to subject

appearances to universal rules of synthesis through grounds of an *a priori* necessary unity (owing to the necessary unification of all consciousness in an original apperception), and thereby to make appearances fit for thoroughgoing connection in one experience.

But all our cognitions lie within the whole of all possible experience, and transcendental truth, which precedes all empirical truth and makes it possible, consists in the universal relation to this experience.

Yet it is also obvious that, although the schemata of sensibility first realize the categories, they nonetheless also restrict them, that is, limit them to conditions that lie outside the understanding (namely, in sensibility). Hence the schema is really only the phenomenon, or the sensible concept, of an object in agreement with the category (*numerus est quantitas phaenomenon, sensatio realitas phaenomenon, constans et perdurabile rerum substantia phaenomenon—aeternitas necessitas phaenomenon*, etc.) [number is quantity as phenomenon; sensation is reality as phenomenon; the constant and enduring in things is substance as phenomenon; eternity is necessity as phenomenon]. Now if we omit a restricting condition, we seem to amplify the previously limited concept. On this view the categories, in their pure meaning, without any conditions of sensibility, ought to hold of things in general *as they are*, whereas their schemata represent things only *as they appear*; the categories would thus have a meaning independent of all schemata and extending much further. In fact, even after all sensible conditions have been separated off, the pure concepts of the understanding do retain a meaning, but only a logical one: that of the mere unity of representations. To these representations, however, no object is given, and hence no meaning that could yield a concept of the object. Thus, for example, substance, if one left out the sensible determination of persistence, would mean nothing more than a something that can be thought as a subject (without being a predicate of something else). From this representation I can make nothing, since it does not indicate to me at

all what determinations the thing has that is supposed to count as such a first subject. Thus the categories without schemata are only functions of the understanding for concepts; they represent no object. This meaning comes to them from sensibility, which realizes the understanding at the same time as it restricts it.

CHAPTER TWO: SYSTEM OF ALL PRINCIPLES OF THE PURE UNDERSTANDING

Kant sets out the synthetic judgments the understanding produces a priori, guided by the table of categories.

140 In the previous chapter we considered the transcendental power of judgment only with respect to the universal conditions under which alone it is entitled to use the pure concepts of the understanding for synthetic judgments. Our task now is to present in systematic combination the judgments that the understanding, under this critical precaution, actually brings about *a priori*. For this, our table of categories must without doubt give us natural and secure guidance. For it is precisely the categories whose relation to possible experience must make up all pure cognition *a priori* of the understanding, and whose relation to sensibility in general will for that very reason set out, completely and in a system, all transcendental principles of the use of the understanding.

Principles *a priori* bear this name not merely because they contain in themselves the grounds of other judgments, but also because they are not themselves grounded in higher and more universal cognitions. Yet this property does not always exempt them from a proof. For although no further objective proof of such a principle could be given, since it rather lies at the foundation of all cognition of its object, this does not prevent it from being possible—indeed necessary—to produce a proof from the subjective sources of the possibility of a cognition of an object in general. Otherwise the proposition would still bear the gravest suspicion of being a merely surreptitious assertion.

Second, we shall restrict ourselves merely to those principles that relate to the categories. The principles of the transcendental aesthetic, according to which space and time are the conditions of the possibility of all things as appearances, as well as the restriction of these principles—namely, that they cannot be related to things in themselves—therefore do not belong in our marked-off field of inquiry. Likewise, the mathematical principles form no part of this system, since they are drawn only from intuition and not from the [141] pure concept of the understanding. Yet since they are nonetheless synthetic judgments *a priori*, their possibility will necessarily find a place here—not in order to prove their correctness and apodictic certainty, which they have no need of at all, but only to make the possibility of such evident cognitions *a priori* comprehensible, and to deduce it.

We shall also have to speak of the principle of analytic judgments, however, and indeed in contrast with that of synthetic judgments, which are our real concern; for precisely this contrast frees the theory of synthetic judgments from all misunderstanding and sets them clearly before our eyes in their distinctive nature.

SECTION ONE: THE SUPREME PRINCIPLE OF ALL ANALYTIC JUDGMENTS

The principle of contradiction is sufficient for analytic truth but has no place for time.

Whatever the content of our cognition may be, and however it may relate to the object, the universal, though only negative, condition of all our judgments whatever is that they do not contradict themselves; otherwise these judgments are in themselves (even without regard to the object) nothing. But even if there is no contradiction in our judgment, it may nonetheless combine concepts in a way the object does not warrant, or without any ground, either *a priori* or *a posteriori*, being given to us that would justify such a judgment. And so a judgment, for all

that it is free of any internal contradiction, can still be either false or groundless.

Now the proposition "No thing has a predicate that contradicts it" is called the principle of contradiction. It is a universal, though merely negative, criterion of all truth. But for that very reason it belongs merely to logic, since it holds of cognitions merely as cognitions in general, irrespective of their content, and says that contradiction entirely annihilates and cancels them.

But one can also make a positive use of it: that is, not merely to banish falsehood and error (insofar as error rests on contradiction), but also to cognize truth. [142] For *if the judgment is analytic*, whether negative or affirmative, its truth must always be adequately cognizable according to the principle of contradiction. For the opposite of what already lies and is thought as a concept in the cognition of the object will always be rightly denied of it, while the concept itself must necessarily be affirmed of it, because the opposite of that concept would contradict the object.

Hence we must also accept the *principle of contradiction* as the universal and completely sufficient *principle of all analytic cognition*. But its authority and usefulness as a sufficient criterion of truth extend no further. For the fact that no cognition can run counter to it without annihilating itself makes this principle a *conditio sine qua non* [indispensable condition], but not a determining ground of the truth of our cognition. Now since we are really concerned only with the synthetic part of our cognition, we shall indeed always take care never to act against this inviolable principle; but with regard to the truth of cognition of this kind we can never expect any information from it.

There is, however, one formula of this famous principle—a principle stripped of all content and merely formal—that contains a synthesis which has been mixed into it carelessly and quite needlessly. It reads: "It is impossible for something to be and not to be *at the same time*." Apart from the fact that apodictic certainty is here superfluously appended (through the word

impossible), although it must be understood from the proposition by itself, the proposition is affected by the condition of time. It says, as it were: "A thing = A, which is something = B, cannot at the same time be non-B; but it can very well be both (B as well as non-B) one after the other." For example, a person who is young cannot at the same time be old; but the very same person can very well be young at one time and not young, that is, old, at another. Now the principle of contradiction, as a merely logical principle, must not restrict its pronouncements to temporal relations at all; hence such a formula is quite contrary to its purpose. The misunderstanding arises merely from this: one first separates a predicate of a thing from the concept of that thing, and afterwards connects its opposite with this predicate. This never yields a contradiction with the subject, but only with [143] its predicate, which has been combined with the subject synthetically—and then only when the first and second predicates are posited at the same time. If I say, "A person who is unlearned is not learned," the condition *at the same time* must be added; for someone who is unlearned at one time can very well be learned at another. But if I say, "No unlearned person is learned," the proposition is analytic, since the mark (unlearnedness) now helps make up the concept of the subject; and then the negative proposition is evident immediately from the principle of contradiction, without the condition *at the same time* needing to be added. This, then, is also the reason why I altered the formula of the principle above in such a way that the nature of an analytic proposition is clearly expressed by it.

SECTION TWO: THE SUPREME PRINCIPLE OF ALL SYNTHETIC JUDGMENTS

The conditions of the possibility of experience are also conditions of the possibility of its objects.

Explaining the possibility of synthetic judgments is a task with which general logic has nothing whatever to do; it need not even know the task's name. But in a transcendental logic it is the most important business of all—and indeed the only one, when the

question is the possibility of synthetic judgments *a priori*, together with the conditions and the scope of their validity. For once this business is complete, transcendental logic can fully accomplish its purpose, namely to determine the scope and the boundaries of the pure understanding.

In an analytic judgment I stay with the given concept in order to establish something about it. If the judgment is to be affirmative, I attribute to this concept only what was already thought in it; if it is to be negative, I merely exclude the opposite of that from it. In synthetic judgments, however, I am to go beyond the given concept in order to consider something quite different from what was thought in it as standing in relation to it. This relation is therefore never one of identity or of contradiction, and in it neither the truth nor the error of the judgment can be seen from the judgment itself.

[144] Granted, then, that one must go beyond a given concept in order to compare it synthetically with another, a third thing is needed, in which alone the synthesis of two concepts can arise. But what, then, is this third thing, as the medium of all synthetic judgments? It is only a totality in which all our representations are contained: namely, inner sense and its form *a priori*, time. The synthesis of representations rests on the imagination; but their synthetic unity (which is required for judgment) rests on the unity of apperception. Here, then, is where we must look for the possibility of synthetic judgments; and since all three contain the sources of *a priori* representations, here too we must look for the possibility of pure synthetic judgments. Indeed, on these grounds such judgments will even be necessary, if there is to be any cognition of objects that rests solely on the synthesis of representations.

If a cognition is to have objective reality—that is, to relate to an object and to have significance and sense in it—then the object must be capable of being given in some way. Without that, concepts are empty. Through them one has indeed thought, but by this thinking one has in fact cognized nothing; one has merely played with representations. To give an object—

if this is not in turn meant only mediately, but means to present it immediately in intuition—is nothing other than to relate its representation to experience (whether actual or at least possible). Even space and time, however pure these concepts are of everything empirical, and however certain it is that they are represented in the mind completely *a priori*, would still be without objective validity, and without sense and significance, unless their necessary use on the objects of experience were shown. Indeed, their representation is a mere schema, which always relates to the reproductive imagination, the imagination that calls up the objects of experience; without these objects they would have no significance. And so it is with all concepts without distinction.

The possibility of experience, then, is what gives objective reality to all our cognitions *a priori*. Now experience rests on the synthetic unity of appearances, that is, on a synthesis according to concepts of the object of appearances in general. Without this synthesis it would not even be cognition, but a rhapsody of perceptions. These perceptions would not fit together into any context according to rules of a thoroughly connected [145] (possible) consciousness, and so would not fit together into the transcendental and necessary unity of apperception either. Experience, therefore, has at its foundation *a priori* principles of its form, namely universal rules of unity in the synthesis of appearances. Their objective reality, as necessary conditions, can always be shown in experience—indeed, even in its possibility. Apart from this relation, however, synthetic propositions *a priori* are entirely impossible, because they have no third thing—namely, no object—in which the synthetic unity of their concepts could demonstrate objective reality.

So although we cognize so much *a priori* in synthetic judgments about space in general, or about the figures that the productive imagination draws in it, that we really need no experience at all for this, this cognition would still be nothing at all—it would be busying ourselves with a mere figment of the brain—if space were not to be regarded as the condition of the appear-

ances that make up the material for outer experience. Hence those pure synthetic judgments relate, though only mediately, to possible experience, or rather to the very possibility of experience, and on that alone they ground the objective validity of their synthesis.

Experience, then, as empirical synthesis, is in its possibility the only kind of cognition that gives reality to all other synthesis. Therefore this other synthesis, as cognition *a priori*, also has truth (agreement with the object) only because it contains nothing more than what is necessary for the synthetic unity of experience in general.

The supreme principle of all synthetic judgments, therefore, is this: every object stands under the necessary conditions of the synthetic unity of the manifold of intuition in a possible experience.

In this way synthetic judgments *a priori* are possible: when we relate the formal conditions of *a priori* intuition, the synthesis of the imagination, and the necessary unity of this synthesis in a transcendental apperception to a possible empirical cognition in general, and say: the conditions of the *possibility of experience* in general are at the same time conditions of the *possibility of the objects of experience*, and therefore have objective validity in a synthetic judgment *a priori*.

SECTION THREE: SYSTEMATIC REPRESENTATION OF ALL SYNTHETIC PRINCIPLES

The principles divide into mathematical and dynamical, after the table of categories.

[146] That there are principles anywhere at all is to be ascribed solely to the pure understanding. The understanding is not only the faculty of rules with respect to what happens; it is itself the source of the principles according to which everything (that can come before us as an object at all) necessarily stands under rules. For without such rules, no cognition of an object corresponding to them could ever belong to appearances. Even laws of nature, when regarded as principles of the empirical use of the

understanding, carry with them an expression of necessity, and hence at least the presumption of a determination from grounds that are valid *a priori* and prior to all experience. But all laws of nature without distinction stand under higher principles of the understanding, since they merely apply these to particular cases of appearance. These higher principles alone, then, give the concept that contains the condition—the exponent, so to speak—of a rule in general; experience, however, gives the case that stands under the rule.

There can really be no danger that merely empirical principles will be taken for principles of the pure understanding, or the reverse. For the necessity according to concepts that distinguishes the latter, and whose absence is easily perceived in every empirical proposition, however universally it may hold, can easily prevent this confusion. There are, however, pure principles *a priori* that I would nevertheless not want to attribute to the pure understanding as its own, because they are drawn not from pure concepts but from pure intuitions (though by means of the understanding); and understanding is the faculty of concepts. Mathematics has such principles. But their application to experience, and hence their objective validity—indeed, the possibility of such synthetic cognition *a priori* (its deduction)—always rests on the pure understanding.

I will therefore not count the fundamental principles of mathematics among my own. I will, however, count those on which the possibility and [147] objective validity *a priori* of mathematics are grounded. These are thus to be regarded as the principle of those fundamental principles, and they proceed *from concepts* to intuition, not *from intuition* to concepts.

In the application of the pure concepts of the understanding to possible experience, the use of their synthesis is either *mathematical* or *dynamical*: for it concerns partly the mere *intuition* of an appearance in general, partly its *existence*. Now the *a priori* conditions of intuition are absolutely necessary with respect to a possible experience, whereas those of the existence of the objects of a possible empirical intuition are in themselves only

contingent. Hence the principles of the mathematical use will be unconditionally necessary, that is, apodictic. Those of the dynamical use will also carry with them the character of an *a priori* necessity, but only under the condition of empirical thinking in an experience, and so only mediately and indirectly. Consequently they will not contain the immediate self-evidence that is peculiar to the former (though without prejudice to their certainty, which is universally related to experience). But this can be better judged at the conclusion of this system of principles.

THE TABLE OF PRINCIPLES

Axioms of intuition, anticipations of perception, analogies of experience, postulates of empirical thinking.

The table of the categories gives us an entirely natural guide to the table of principles, since the principles are nothing other than rules for the objective use of the categories. Accordingly, all principles of the pure understanding are

1. *Axioms* of intuition.
2. *Anticipations* of perception.
3. *Analogies* of experience.
4. *Postulates* of empirical thinking in general.

I have chosen these names with care, so that the differences in the self-evidence and the exercise of these principles [148] should not go unnoticed. It will soon become clear, however, that as regards both the self-evidence and the *a priori* determination of appearances according to the categories of *quantity* and *quality* (if one attends solely to the form of the latter), the principles of these categories differ markedly from the other two. The former are capable of an intuitive certainty, the latter of a merely discursive one, although both are capable of complete certainty. I will therefore call the former the *mathematical* and

the latter the *dynamical* principles.[2] It should be noted, however, that I have in view here neither the principles of mathematics in the one case nor the principles of general (physical) dynamics in the other, but only those of the pure understanding in relation to inner sense (without distinguishing the representations given in it). It is through these that the principles of mathematics and of dynamics all receive their possibility. So I name them more with regard to their application than for the sake of their content, and I now proceed to consider them in the same order in which they are presented in the table.

1. AXIOMS OF INTUITION

Principle: all intuitions are extensive magnitudes, which makes mathematics applicable to appearances.

As regards their form, all appearances contain an intuition in space and time, which underlies them all *a priori*. They cannot, therefore, be apprehended—that is, taken up into empirical consciousness [149] —except through the synthesis of the manifold by which the representations of a determinate space or time are generated; that is, through the composition of the homogeneous and the consciousness of the synthetic unity of this (homogeneous) manifold. Now the consciousness of the homogeneous manifold in intuition in general, insofar as the representation of

2 KANT'S NOTE. All *combination* (*conjunctio*) is either *composition* (*compositio*) or connection (*nexus*). The former is the synthesis of a manifold whose parts do *not necessarily belong to one another*. For example, the two triangles into which a square is divided by its diagonal do not, taken by themselves, necessarily belong to one another. Of this kind is the synthesis of the *homogeneous* in everything that can be considered *mathematically* (a synthesis that can in turn be divided into that of *aggregation* and that of coalition, the former directed to *extensive* magnitudes, the latter to *intensive* ones). The second combination (*nexus*) is the synthesis of a manifold insofar as its parts *necessarily belong to one another*, as, for example, the accident to some substance, or the effect to the cause—and so is represented as *heterogeneous* and yet combined *a priori*. Since this combination is not arbitrary, I call it dynamical, because it concerns the combination of the *existence* of the manifold. (It can in turn be divided into the *physical* combination of appearances with one another and the *metaphysical* combination, their combination in the *a priori* faculty of cognition.)

an object first becomes possible through it, is the concept of a magnitude (*quanti*). Thus even the perception of an object as appearance is possible only through the same synthetic unity of the manifold of the given sensible intuition through which the unity of the composition of the homogeneous manifold is thought in the concept of a *magnitude*. That is, appearances are all magnitudes, and indeed *extensive magnitudes*, because as intuitions in space or time they must be represented through the same synthesis through which space and time in general are determined.

I call a magnitude extensive when the representation of the parts makes possible the representation of the whole (and therefore necessarily precedes it). I cannot represent to myself any line, however small, without drawing it in thought, that is, without generating all its parts one after another from a point and thereby first tracing this intuition. It is just the same with every time, even the smallest. In it I think only the successive progression from one instant to another, in which, through all the parts of time and their addition, a determinate magnitude of time is finally generated. Since the mere intuition in all appearances is either space or time, every appearance as intuition is an extensive magnitude, since it can be cognized in apprehension only through successive synthesis (from part to part). Accordingly, all appearances are already intuited as aggregates [150] (multitudes of previously given parts). This is not the case with every kind of magnitude, but only with those that we represent and apprehend *extensively* as such.

On this successive synthesis of the productive imagination in the generation of figures is grounded the mathematics of extension (geometry), with its axioms. These express the conditions of *a priori* sensible intuition under which alone the schema of a pure concept of outer appearance can come about: for example, between two points only one straight line is possible; two straight lines enclose no space; and so on. These are the axioms, which properly concern only magnitudes (*quanta*) as such.

But as regards magnitude (*quantitas*)—that is, the answer to the question of how large something is—there are no axioms in the proper sense, even though several propositions about it are synthetic and immediately certain (*indemonstrabilia* [indemonstrable]). For the propositions that equals added to or subtracted from equals give an equal are analytic, since I am immediately conscious of the identity of the one generation of magnitude with the other; axioms, however, are supposed to be synthetic propositions *a priori*. The self-evident propositions of numerical relation, on the other hand, are certainly synthetic, but not universal like those of geometry, and for precisely that reason they are not axioms either, but can be called numerical formulas. That 7 + 5 = 12 is not an analytic proposition.[3] For I think the number 12 neither in the representation of 7, nor in that of 5, nor in the representation of their composition. (That I ought to think it *in the addition of the two* is not at issue here; for with an analytic proposition the only question is whether I actually think the predicate in the representation of the subject.) But although it is synthetic, it is still only a singular proposition. Insofar as we attend here merely to the synthesis of the homogeneous (of units), the synthesis can take place here in only one way, although the *use* of these numbers is afterward universal. If I say, "A triangle can be drawn with three lines, any two of which taken together are greater than the third," I have here the mere function of the productive imagination, which can draw the lines greater or smaller and likewise let them meet at any angles whatever. The number 7, by contrast, is possible in only one way, and so is the number 12, which is generated through the synthesis of 7 with 5. Such [151] propositions, therefore, must not be called axioms (for otherwise there would be infinitely many of them), but numerical formulas.

This transcendental principle of the mathematics of appearances greatly extends our cognition *a priori*. For it alone makes pure mathematics, in all its precision, applicable to objects of

3 Kant distinguishes *quanta*, things that have magnitude, from *quantitas*, magnitude as the answer to "how large?"

experience. Without this principle that might not be so obvious of itself; indeed, it has even given rise to much contradiction. Appearances are not things in themselves. Empirical intuition is possible only through pure intuition (of space and time). What geometry says of the latter, therefore, holds indisputably of the former as well; and the evasions—as though objects of the senses need not conform to the rules of construction in space (for example, to the infinite divisibility of lines or angles)—must fall away. For by such evasions one denies objective validity to space, and with it to all mathematics as well, and no longer knows why and how far mathematics is to be applied to appearances. The synthesis of spaces and times, as the essential form of all intuition, is what at the same time makes possible the apprehension of the appearance, hence every outer experience, and consequently also all cognition of its objects; and what mathematics in its pure use proves of the former necessarily holds of the latter as well. All objections to this are only the quibbles of a falsely instructed reason. Such reason mistakenly thinks to detach the objects of the senses from the formal condition of our sensibility, and represents them, although they are mere appearances, as objects in themselves, given to the understanding. In that case, of course, nothing at all could be cognized of them *a priori*, and so nothing could be cognized of them synthetically through pure concepts of space either; and the science that determines these concepts, namely geometry, would itself not be possible.

2. ANTICIPATIONS OF PERCEPTION

Principle: in all appearances the real that is an object of sensation has intensive magnitude, a degree.

Its principle is: *In all appearances the real, which is an object of sensation, has intensive magnitude*, that is, a degree.

PROOF OF THE ANTICIPATIONS

Every sensation has a degree that can diminish continuously to zero, so no experience can prove empty space.

[152] Perception is empirical consciousness, that is, a consciousness in which there is also sensation. Appearances, as objects of perception, are not pure (merely formal) intuitions, as space and time are (for these cannot be perceived in themselves at all). Besides the intuition, then, they also contain the matter for some object in general (through which something existing in space or time is represented)—that is, the real of sensation as a merely subjective representation, of which one can only become conscious that the subject is affected, and which one relates to an object in general. Now a graduated change is possible from empirical consciousness to pure consciousness, in which the real of the former vanishes entirely and a merely formal consciousness (*a priori*) of the manifold in space and time remains. So there is also possible a synthesis in the generation of the magnitude of a sensation, from its beginning—pure intuition = 0—up to any magnitude of it one likes. Now sensation in itself is not an objective representation at all, and in it we find the intuition neither of space nor of time. So although it will not have an extensive magnitude, it will still have a magnitude (namely through its apprehension, in which empirical consciousness can grow in a certain time from nothing = 0 up to its given measure), and thus an *intensive magnitude*. Correspondingly, *intensive magnitude*—that is, a degree of influence on the sense—must be ascribed to all objects of perception insofar as they contain sensation.

All cognition by means of which I can cognize and determine *a priori* what belongs to empirical cognition may be called an anticipation; and this is doubtless the meaning in which Epicurus used his term *πρόληψις* [prolēpsis, "anticipation"]. But there is something in appearances that is never cognized *a priori*, and that therefore also makes up the real difference between

the empirical and cognition *a priori*: namely sensation (as the matter of perception). It follows that sensation is precisely what cannot be anticipated at all. [153] By contrast, we could call the pure determinations in space and time, with respect both to figure and to magnitude, anticipations of appearances, because they represent *a priori* what may always be given *a posteriori* in experience.[4] Suppose, however, that there is after all something that can be cognized *a priori* in every sensation, as sensation in general (without any particular sensation being given). This would deserve to be called an anticipation in an exceptional sense, because it seems strange to anticipate experience in precisely what concerns its matter, which can be drawn only from experience itself. And this is really how things stand here.

Apprehension by means of sensation alone fills only an instant (if, that is, I do not take into account the succession of many sensations). As something in appearance whose apprehension is not a successive synthesis proceeding from parts to the whole representation, sensation therefore has no extensive magnitude. The absence of sensation in that same instant would represent the instant as empty, hence = 0. Now what corresponds to sensation in empirical intuition is reality (*realitas phaenomenon* [reality as phenomenon]); what corresponds to its absence is negation = 0. But every sensation is capable of diminution, so that it can decrease and thus gradually vanish. Hence between reality in appearance and negation there is a continuous connection of many possible intermediate sensations, the difference between any two of which is always smaller than the difference between the given sensation and zero, or complete negation. That is: the real in appearance always has a magnitude. This magnitude, however, is not encountered in apprehension, since apprehension takes place by means of mere sensation in an instant, and not through the successive synthesis of many sensations, and so does not proceed from the

4 Epicurus (341–270 BC), Greek philosopher. For him a prolēpsis was a general notion, formed from repeated perceptions, that lets us recognize things in advance.

parts to the whole. The real thus has a magnitude, but not an extensive one.

Now the magnitude that is apprehended only as unity, and in which plurality can be represented only through approximation to negation = 0, I call *intensive magnitude*. Thus every reality in appearance has intensive magnitude, that is, a degree. If one considers this reality as a cause (whether of sensation or of other reality in appearance, for example a change), then one calls the degree of reality as cause a moment—for example, the moment of gravity. One does so because the degree designates only the magnitude whose apprehension is [154] not successive but instantaneous. But I touch on this here only in passing, for I am not yet concerned with causality.

Accordingly, every sensation, and hence every reality in appearance, however small it may be, has a degree, that is, an intensive magnitude that can always be diminished further; and between reality and negation there is a continuous connection of possible realities and possible smaller perceptions. Every color—red, for example—has a degree which, however small it may be, is never the smallest; and it is the same everywhere with heat, the moment of gravity, and so on.

The property of magnitudes by which no part of them is the smallest possible (no part is simple) is called their continuity. Space and time are *quanta continua* [continuous quanta], because no part of them can be given without enclosing it between boundaries (points and instants), and hence only in such a way that this part is itself again a space or a time. Space, therefore, consists only of spaces, and time only of times. Points and instants are only boundaries, that is, mere places where space and time are limited. But places always presuppose the intuitions they are supposed to limit or determine; and neither space nor time can be composed out of mere places, as if out of constituents that could be given prior to space or time. Magnitudes of this kind can also be called *flowing*, because the synthesis (of the productive imagination) in their generation is a

progression in time, whose continuity is customarily designated in particular by the expression flowing (elapsing).

All appearances in general are therefore continuous magnitudes: as regards their intuition, extensive magnitudes; as regards mere perception (sensation, and hence reality), intensive ones. If the synthesis of the manifold of appearance is interrupted, the result is an aggregate of many appearances (and not properly appearance as a quantum). Such an aggregate is generated not through the mere continuation of productive synthesis of a certain kind, but through the repetition of a synthesis that keeps ceasing. If I call 13 thalers a quantum of money, I name it correctly insofar as I understand by this the content of one mark of fine silver. This is certainly a continuous magnitude, in which no part is the smallest [155] , but every part could make up a coin that would always contain material for still smaller ones.[5] But if by that name I understand 13 round thalers, as so many coins (whatever their silver content may be), then it is inappropriate for me to call this a quantum of thalers; I must call it an aggregate, that is, a number of coins. Now since unity must underlie every number, appearance as unity is a quantum, and as such it is always a continuum.

Now if all appearances, considered both extensively and intensively, are continuous magnitudes, then the proposition that all change (the transition of a thing from one state into another) is also continuous could be proved here easily and with mathematical self-evidence—were it not that the causality of a change in general lies entirely outside the boundaries of a transcendental philosophy and presupposes empirical principles. For that a cause is possible which changes the state of things, that is, determines them to the opposite of a certain given state—of this the understanding gives us no disclosure at all *a priori*. This is not merely because it has no insight at all into the possibility of this (for we lack this insight in several cognitions *a priori*), but because changeability concerns only certain determin-

5 The thaler was a large silver coin; the mark was a unit of weight (about half a pound) for precious metals, from which a fixed number of thalers was minted.

ations of appearances, which experience alone can teach, whereas their cause is to be found in the unchangeable. But here we have nothing before us that we can make use of except the pure fundamental concepts of all possible experience, among which there must be absolutely nothing empirical. So we cannot, without violating the unity of the system, anticipate general natural science, which is built on certain fundamental experiences.

Nevertheless, we do not lack proofs of the great influence this principle of ours has in anticipating perceptions, and even in making up for their absence to the point of barring the way to all the false inferences that might be drawn from that absence.

If all reality in perception has a degree, between which and negation there is an infinite gradation of ever smaller degrees, and if nevertheless every sense must have a determinate degree of receptivity for sensations, then no perception, and hence no experience, is possible that could prove a complete absence of everything real in appearance, whether immediately or mediately (by whatever [156] roundabout reasoning one might like). That is, no proof of empty space or of an empty time can ever be drawn from experience. For, first, the complete absence of the real in sensible intuition cannot itself be perceived. Second, it cannot be inferred from any single appearance and the difference in the degree of its reality, nor may it ever be assumed in order to explain that difference. For even if the whole intuition of a determinate space or time is real through and through, that is, no part of it is empty, still every reality has its degree, which, while the extensive magnitude of the appearance stays unchanged, can decrease through infinitely many steps down to nothing (the void). So there must be infinitely different degrees with which space or time is filled, and the intensive magnitude in different appearances can be smaller or greater, although the extensive magnitude of the intuition is the same.

Let us give an example of this. Almost all natural philosophers perceive a great difference in the quantity of matter of different kinds in equal volumes (partly through the moment of grav-

ity, or weight, partly through the moment of resistance to other matter in motion). From this they unanimously conclude that this volume (the extensive magnitude of the appearance) must be empty in all matter, though to different extents. But which of these natural scientists, most of them mathematical and mechanical, would ever have imagined that they based this inference solely on a metaphysical presupposition—the very kind they claim so strongly to avoid? For they assume that the *real* in space (I do not want to call it impenetrability or weight here, because these are empirical concepts) is *everywhere the same*, and can differ only in extensive magnitude, that is, in amount. To this presupposition, for which they could have had no ground in experience and which is therefore merely metaphysical, I oppose a transcendental proof. This proof is not meant to explain the difference in the filling of spaces. But it completely removes the supposed necessity of that presupposition—that the difference in question can be explained only by assuming empty spaces—and it has the merit of at least setting the understanding free to think of this difference in another way as well, should the explanation of nature require some hypothesis for it. For here we see that, although equal spaces may be completely filled by different kinds of matter [157] , so that in none of them is there a point where their presence is not to be found, nevertheless every real, with the same quality, has its degree (of resistance or of weight). This degree can become smaller to infinity, without any diminution of the extensive magnitude or amount, before it passes over into the void and vanishes. Thus an expansion that fills a space—heat, for example—and likewise every other reality (in appearance) can decrease in its degrees to infinity without leaving even the smallest part of this space empty, and can nonetheless fill the space with these smaller degrees just as well as another appearance does with greater ones. My intention here is by no means to assert that this is actually how things stand with the difference of kinds of matter in their specific gravity. I mean only to show, from a principle of the pure understanding, that the nature of our perceptions makes such a kind of explanation

possible; and that it is wrong to assume that the real in appearance is equal in degree and differs only in aggregation and its extensive magnitude—and even to claim this, allegedly, on the strength of an *a priori* principle of the understanding.

Nevertheless, for an investigator accustomed to transcendental reflection, and made cautious by it, this anticipation of perception always has something striking about it. It raises some misgiving that the understanding should be able to anticipate a synthetic proposition such as the one about the degree of everything real in appearances, and hence about the possibility of the inner difference of sensation itself, when one abstracts from its empirical quality. And so there remains a question not unworthy of resolution: how can the understanding pronounce synthetically and *a priori* about appearances here, and even anticipate them in what is properly and merely empirical, namely what concerns sensation?

The *quality* of sensation is always merely empirical and cannot be represented *a priori* at all (for example, colors, taste, and so on). But the real that corresponds to sensations in general, as opposed to negation = 0, represents only something whose concept in itself contains being, and signifies nothing but the synthesis in an empirical consciousness in general. For in inner sense the empirical consciousness can be raised from 0 to any greater degree, so that the very same extensive magnitude of intuition (an illuminated surface, for example) arouses as great [158] a sensation as an aggregate of many others (less illuminated) taken together. One can therefore abstract entirely from the extensive magnitude of the appearance and still represent, in mere sensation in a moment, a synthesis of uniform increase from 0 up to the given empirical consciousness. So all sensations as such are indeed given only *a posteriori*, but their property of having a degree can be cognized *a priori*. It is remarkable that of magnitudes in general we can cognize *a priori* only a single *quality*, namely continuity, while of all quality (the real of appearances) we can cognize *a priori* nothing more than its

intensive *quantity*, namely that it has a degree. Everything else is left to experience.

Analogies of Experience; Postulates; Refutation of Idealism

Substance, causality and community as conditions of experience; and a proof that outer things exist.

Their principle is: *Experience is possible only through the representation of a necessary connection of perceptions.*

PROOF

Experience is possible only if perceptions are represented as necessarily connected in time.

Experience is an empirical cognition, that is, a cognition that determines an object through perceptions. It is therefore a synthesis of perceptions that is not itself contained in perception. Rather, it contains the synthetic unity of the manifold of perceptions in one consciousness, and this unity constitutes what is essential in a cognition of *objects* of the senses—that is, of experience (not merely of intuition or sensation of the senses). Now in experience perceptions do come together only contingently, so that no necessity of their connection is evident, or can be evident, from the perceptions themselves. For apprehension is only a putting-together of the manifold of empirical intuition; no representation of [159] the necessity of the combined existence of the appearances that it puts together in space and time is to be found in it. But experience is a cognition of objects through perceptions. Consequently the relation in the existence of the manifold is to be represented in it not as it is put together in time, but as it is objectively in time. Time itself, however, cannot be per-

ceived. So the determination of the existence of objects in time can take place only through their combination in time in general, and hence only through concepts that connect *a priori*. Now since these always carry necessity with them as well, experience is possible only through a representation of the necessary connection of perceptions.

The three *modes* of time are *persistence*, *succession*, and *simultaneity*. Hence there will be three rules of all temporal relations of appearances, according to which the existence of each can be determined with respect to the unity of all time; and these rules will precede all experience and first make it possible.

The general principle of all three analogies rests on the necessary *unity* of apperception with respect to all possible empirical consciousness (perception) *at every time*. Consequently, since that unity lies *a priori* at the foundation, it rests on the synthetic unity of all appearances according to their relation in time. For original apperception refers to inner sense (the sum total of all representations), and indeed *a priori* to its form, that is, to the relation of the manifold empirical consciousness in time. Now in original apperception all this manifold is to be united according to its temporal relations. For this is what its transcendental unity *a priori* declares—the unity under which stands everything that is to belong to my (that is, my single) cognition, and so can become an object for me. This *synthetic unity* in the temporal relation of all perceptions, *which is determined a priori*, is therefore the law that all empirical time-determinations must stand under rules of universal time-determination. And the analogies of experience, which we shall now treat, must be rules of this kind.

These principles have this peculiarity: they do not consider appearances and the synthesis of their empirical intuition, but merely their *existence* and their *relation* to one another with respect to this existence. Now the way in which something is [160] apprehended in appearance can be determined *a priori* in such a way that the rule of its synthesis can at the same time give this intuition *a priori* in any empirical example before us—that is,

can bring it about from that example. But the existence of appearances cannot be cognized *a priori*. And even if we could manage in this way to infer some existence or other, we would still not cognize it determinately; that is, we could not anticipate what distinguishes its empirical intuition from others.

The previous two principles, which I called mathematical because they entitle us to apply mathematics to appearances, concerned appearances with respect to their mere possibility. They taught how appearances, both as to their intuition and as to the real of their perception, could be generated according to rules of a mathematical synthesis. Hence in the one case as in the other, numerical magnitudes, and with them the determination of the appearance as a magnitude, can be used. Thus, for example, I can compose the degree of the sensation of sunlight out of some 200,000 illuminations by the moon, and give it determinately *a priori*—that is, construct it. We can therefore call the former principles constitutive.

It must be quite otherwise with the principles that are to bring the existence of appearances under rules *a priori*. For since existence cannot be constructed, they can concern only the relation of existence, and can yield nothing but merely *regulative* principles. Here, then, there is no thought of either axioms or anticipations. Rather, if a perception is given to us in a temporal relation to others (though these are undetermined), it cannot be said *a priori which* other perception, or *how large* a one, but only how it is necessarily connected with the first, as to its existence, in this *mode* of time. In philosophy, analogies signify something very different from what they represent in mathematics. In mathematics they are formulas that assert the equality of two relations of magnitude, and they are always *constitutive*: if three members of the proportion are given, the fourth is thereby given as well, that is, can be constructed. In philosophy, however, analogy is the equality not of two *quantitative* but of two *qualitative* relations. Here, from three given members, I can cognize and give *a priori* only *the relation* to a fourth, not *this* fourth *member* itself. But [161] I do have a rule for seeking it in experience,

and a mark by which to find it there. An analogy of experience will therefore be only a rule according to which unity of experience is to arise from perceptions (not as perception itself arises, as empirical intuition in general). As a principle it will hold of objects (appearances) not *constitutively* but merely *regulatively*. The very same will hold of the postulates of empirical thinking in general, which concern together the synthesis of mere intuition (the form of appearance), of perception (its matter), and of experience (the relation of these perceptions). Namely, they are only regulative principles. They differ from the mathematical principles, which are constitutive, not in certainty, which is established *a priori* in both, but in the kind of evidence—that is, in its intuitive character (and hence also in demonstration).

But what was noted of all synthetic principles, and must be especially remarked here, is this. These analogies have their sole meaning and validity not as principles of the transcendental use of the understanding but merely of its empirical use, and so can be proved only as such. Consequently, appearances must be subsumed not under the categories without qualification, but only under their schemata. For if the objects to which these principles are to be applied were things in themselves, it would be quite impossible to cognize anything about them synthetically *a priori*. Now they are nothing but appearances, and complete cognition of them—in which all principles *a priori* must always ultimately issue—is solely possible experience. Consequently these principles can have as their aim nothing but the conditions of the unity of empirical cognition in the synthesis of appearances. This unity, however, is thought only in the schema of the pure concept of the understanding; and of this unity, as a synthesis in general, the category contains the function, restricted by no sensible condition. By these principles, therefore, we shall be entitled to compose appearances only according to an analogy with the logical and universal unity of concepts. In the principle itself we shall indeed make use of the category; but in carrying it out (in applying it to appearances) we shall put its schema in its place, as the key to

its use—or rather, we shall set the schema beside the category as its restricting condition, under the name of a formula of the category.

A. FIRST ANALOGY: PRINCIPLE OF THE PERSISTENCE OF SUBSTANCE

In all change of appearances substance persists, and its quantum in nature neither increases nor decreases.

[162] *In all change of appearances substance persists, and its quantum in nature is neither increased nor diminished.*

PROOF

Time itself cannot be perceived, so something persistent in appearances must represent it.

All appearances are in time, and in time alone, as substratum (as the persistent form of inner intuition), can *simultaneity* as well as *succession* be represented. Time, then, in which all change of appearances is to be thought, remains and does not change. For it is that in which succession or simultaneity can be represented only as determinations of it. Now time by itself cannot be perceived. Consequently the substratum that represents time in general must be found in the objects of perception, that is, in the appearances; and in this substratum all *change* or simultaneity can be perceived in apprehension through the relation of appearances to it. But the substratum of everything real, that is, of everything belonging to the existence of things, is *substance*, in which everything that belongs to existence can be thought only as a determination. Consequently the persistent, in relation to which alone all temporal relations of appearances can be determined, is substance in appearance—that is, the real in appearance, which as the substratum of all change always remains the same. Since substance therefore cannot change in its existence, its quantum in nature can also be neither increased nor diminished.

[163] Our *apprehension* of the manifold of appearance is always successive, and is therefore always changing. Through apprehension alone, therefore, we can never determine whether this manifold, as an object of experience, is simultaneous or successive, unless something underlies it that *always is*—that is, something *abiding* and *persistent*, of which all change and simultaneity are nothing but so many ways (*modes* of time) in which the persistent exists. Only in the persistent, then, are temporal relations possible (for simultaneity and succession are the only relations in time). That is, the persistent is the *substratum* of the empirical representation of time itself, in which alone all time-determination is possible. Persistence expresses time in general as the constant correlate of all existence of appearances, of all change and all accompaniment. For change does not affect time itself, but only the appearances in time (just as simultaneity is not a *mode* of time itself, since in time no parts at all are simultaneous; all are successive). If one wanted to ascribe a succession to time itself, one would have to think yet another time in which this succession would be possible. Only through the persistent does *existence* in different parts of the time series, one after another, acquire *a magnitude*, which is called *duration*. For in mere succession alone, existence is always vanishing and beginning, and never has the least magnitude. Without this persistent element, then, there is no temporal relation. Now time in itself cannot be perceived. Hence this persistent element in appearances is the substratum of all time-determination, and consequently also the condition of the possibility of all synthetic unity of perceptions, that is, of experience. In this persistent element, all existence and all change in time can be regarded only as a *mode* of the existence of what remains and persists. Therefore in all appearances the persistent is the object itself, that is, substance (*phaenomenon*); but everything that changes or can change belongs only to the way in which this

substance or these substances exist, and hence to their determinations.[1]

I find that in all ages not only philosophers but even common understanding have presupposed this persistence as a substratum of all change of appearances, and will always accept it as beyond doubt. The philosopher merely expresses himself somewhat more determinately on the matter, saying: in all alterations in the [164] world *substance* remains, and only the *accidents* change. But nowhere do I find even an attempt at a proof of this so synthetic proposition. Indeed, it only rarely stands where it belongs, at the head of the pure laws of nature that hold entirely *a priori*. In fact, the proposition that substance is persistent is tautological. For this persistence alone is the ground on which we apply the category of substance to appearance, and one would have had to prove that in all appearances there is something persistent, in which the changeable is nothing but a determination of its existence. But such a proof can never be conducted dogmatically, that is, from concepts, because it concerns a synthetic proposition *a priori*. And it never occurred to anyone that such propositions are valid only in relation to possible experience, and so can be proved only through a deduction of the possibility of such experience. It is no wonder, then, that although this proposition has been laid at the foundation of all experience (since the need for it is felt in empirical cognition), it has never been proved.

A philosopher was asked: How much does smoke weigh? He replied: Subtract the weight of the ash that remains from the weight of the wood that was burned, and you have the weight of the smoke. He thus presupposed as undeniable that even in fire matter (substance) does not perish; only its form undergoes a change. In the same way, the proposition "from nothing, nothing comes" was only another consequence of the principle of persistence—or rather, of the everlasting existence of the true subject in appearances. For if what one wants to call substance

1 *Phaenomenon* (Latinized Greek): "appearance"—substance as it appears to us, not as a thing in itself.

in appearance is to be the true substratum of all time-determination, then all existence, in past as well as in future time, must be determinable in it alone.[2] We can therefore give an appearance the name "substance" only because we presuppose its existence at all times. This is not even well expressed by the word "persistence," since that word refers more to future time. Yet the inner necessity of persisting is inseparably bound up with the necessity of always having been, and so the expression may stand. *Gigni de nihilo nihil, in nihilum nil posse reverti* [Nothing comes from nothing; nothing can return into nothing] were two propositions that the ancients linked inseparably. Nowadays they are sometimes separated through misunderstanding, because people imagine that they concern things in themselves, and that the first might conflict with the dependence of the world 165 on a supreme cause (even as to its substance). This worry is needless. For here we are speaking only of appearances in the field of experience, whose unity would never be possible if we were to let new things (as to their substance) come into being. For then the one thing that can represent the unity of time would fall away, namely the identity of the substratum, in which alone all change has thoroughgoing unity.[3] This persistence, however, is nothing more than the way in which we represent to ourselves the existence of things (in appearance).

The determinations of a substance, which are nothing other than particular ways in which it exists, are called *accidents*. They are always real, because they concern the existence of the substance (negations are only determinations that express the nonbeing of something in the substance). Now if one ascribes a particular existence to this real in the substance (for example, to motion as an accident of matter), this existence is called inherence, to distinguish it from the existence of substance, which is called subsistence. But many misinterpretations arise from this,

2 Kant does not name him; Lucian tells the story of Demonax in his *Demonax*.
3 Adapted from the Roman satirist Persius (*Satires* 3.83–84), who is echoing the Epicurean principle stated by Lucretius.

and it is more exact and correct to characterize an accident only by the way in which the existence of a substance is positively determined. Nevertheless, by virtue of the conditions of the logical use of our understanding, it is unavoidable to separate out, as it were, what can change in the existence of a substance while the substance remains, and to consider it in relation to what is truly persistent and radical. This is why this category stands under the heading of relations—more as their condition than as itself containing a relation.

On this persistence is also grounded the correction of the concept of *alteration*. Arising and perishing are not alterations of what arises or perishes. Alteration is a way of existing that follows upon another way of existing of the very same object. Hence everything that alters is *abiding*, and only its *state changes*. Since this change thus affects only the determinations, which can cease or also begin, we can say, in a seemingly somewhat paradoxical expression: only the persistent (substance) is altered; the changeable undergoes no alteration, but a *change*, since some determinations cease and others begin.

166 Alteration can therefore be perceived only in substances. Arising or perishing without qualification, which does not merely concern a determination of the persistent, can be no possible perception at all. For it is precisely this persistent element that makes possible the representation of the transition from one state to another, and from non-being to being; these transitions can therefore be cognized empirically only as changing determinations of what abides. Suppose that something simply began to be: then you must have a point of time in which it was not. But to what will you attach this point, if not to what is already there? For an empty time preceding it is not an object of perception. But if you tie this arising to things that existed before and continue until the thing that arises, then the latter was only a determination of the former, as the persistent. It is just the same with perishing: for this presupposes the empirical representation of a time in which an appearance no longer is.

Substances (in appearance) are the substrata of all time-determinations. The arising of some of them and the perishing of others would itself remove the sole condition of the empirical unity of time. The appearances would then be related to two different times, in which existence would flow by side by side—which is absurd. For there is *only one* time, in which all different times must be placed not simultaneously but one after another.

Persistence, accordingly, is a necessary condition under which alone appearances are determinable as things or objects in a possible experience. But as to what the empirical criterion of this necessary persistence—and with it of the substantiality of appearances—may be, what follows will give us occasion to remark what is needed.

B. SECOND ANALOGY: PRINCIPLE OF TEMPORAL SEQUENCE ACCORDING TO THE LAW OF CAUSALITY

All alterations take place according to the law of the connection of cause and effect.

All alterations take place according to the law of the connection of cause and effect.

PROOF

An objective succession, like a ship drifting downstream, requires a rule that fixes the order of perceptions.

[167] (That all appearances of the temporal sequence are, one and all, only *alterations*—that is, a successive being and non-being of the determinations of substance, which persists—and consequently that the being of substance itself following upon its non-being, or its non-being following upon its existence, does not take place; in other words, that there is no arising or perishing of substance itself: this the previous principle has shown. That principle could also have been expressed thus: *All change (succession) of appearances is only alteration*. For the arising or perishing of substance are not alterations of it, since the concept of alteration presupposes one and the same subject as existing

with two opposed determinations, and hence as persistent.—After this preliminary reminder, the proof follows.)

I perceive that appearances follow one another, that is, that a state of things exists at one time whose opposite existed in the previous state. So I am really connecting two perceptions in time. Now connection is not the work of mere sense and intuition; here it is the product of a synthetic faculty of the imagination, which determines inner sense with respect to the temporal relation. But the imagination can combine the two states in question in two ways, so that either the one or the other precedes in time. For time cannot be perceived in itself, and what precedes and what follows cannot be determined in the object, empirically as it were, by reference to time. I am therefore conscious only that my imagination places one state before and the other after—not that in the object the one state precedes the other. In other words, through mere perception the objective relation of the appearances that follow one another remains undetermined. Now for this relation to be cognized as determined, the relation between the two states must be thought in such a way that it is thereby determined as necessary which of them must be placed before and which after, and not the reverse. But the concept that carries with it a necessity of synthetic unity can only be a pure concept of the understanding, which does not lie in perception; and here that is the concept of the *relation of* [168] *cause and effect*. Of these, the cause determines the effect in time as its consequence, and not as something that could merely precede in the imagination (or might not be perceived at all). Therefore experience itself—that is, empirical cognition of appearances—is possible only because we subject the succession of appearances, and hence all alteration, to the law of causality. Hence appearances themselves, as objects of experience, are possible only in accordance with this same law.

The apprehension of the manifold of appearance is always successive. The representations of the parts follow one another. Whether they also follow one another in the object is a second point for reflection, not contained in the first. Now one can

indeed call everything, and even every representation insofar as one is conscious of it, an object. But what this word is to mean in the case of appearances—not insofar as they (as representations) are objects, but only insofar as they designate an object—calls for deeper investigation. Insofar as they are, merely as representations, at the same time objects of consciousness, they are not distinguished at all from apprehension, that is, from being taken up into the synthesis of the imagination. So one must say: the manifold of appearances is always generated successively in the mind. If appearances were things in themselves, no one could gauge from the succession of the representations of their manifold how this manifold is combined in the object. For after all we have to do only with our representations; what things in themselves may be (without regard to the representations through which they affect us) lies wholly outside the sphere of our cognition. Now appearances are not things in themselves, and yet they are the only thing that can be given to us for cognition. So I am to show what sort of combination in time belongs to the manifold in the appearances themselves, even though the representation of this manifold in apprehension is always successive. Thus, for example, the apprehension of the manifold in the appearance of a house standing before me is successive. Now the question is whether the manifold of this house is also successive in itself—which, of course, no one will grant. But as soon as I raise my concepts of an object to their transcendental meaning, the house is no thing in itself at all, but only an appearance, that is, a representation whose transcendental [169] object is unknown. What, then, do I mean by the question of how the manifold may be combined in the appearance itself (which is nothing in itself)? Here what lies in the successive apprehension is regarded as representation. The appearance that is given to me, on the other hand, though it is nothing more than a sum total of these representations, is regarded as their object, with which my concept, drawn from the representations of apprehension, is to agree. One soon sees that, since the agreement of cognition with its object is truth, the only question that

can be asked here concerns the formal conditions of empirical truth. And the appearance, in contrast with the representations of apprehension, can be represented as their object, distinct from them, only if it stands under a rule that distinguishes it from every other apprehension and makes one kind of combination of the manifold necessary. That in the appearance which contains the condition of this necessary rule of apprehension is the object.

Now let us proceed to our problem. That something happens —that is, that something, or a state, comes to be that was not there before—cannot be perceived empirically unless it is preceded by an appearance that does not contain this state. For an actuality that followed upon an empty time—hence an arising not preceded by any state of things—can no more be apprehended than empty time itself. Every apprehension of an event is therefore a perception that follows upon another. But since this is so in all synthesis of apprehension, as I showed above with the appearance of a house, the apprehension of an event is not yet thereby distinguished from any other. But I also notice that if, in an appearance that contains a happening, I call the preceding state of perception A and the following one B, then B can only follow A in apprehension, while the perception A cannot follow B but can only precede it. For example, I see a ship drifting downstream. My perception of its position lower down follows my perception of its position higher up the course of the river, and it is impossible that in the apprehension of this appearance the ship should be perceived first lower down and afterward higher up the stream. Here, then, the order in the succession of perceptions in apprehension is determined, and apprehension is bound to it. In the previous [170] example of a house, my perceptions in apprehension could begin at its roof and end at the ground, but could also begin below and end above; likewise they could apprehend the manifold of the empirical intuition from the right or from the left. In the series of these perceptions, therefore, there was no determinate order that made it necessary where I had to begin in apprehension in

order to combine the manifold empirically. But this rule is always to be found in the perception of what happens, and it makes the order of the perceptions that follow one another (in the apprehension of this appearance) *necessary*.

In our case, therefore, I shall have to derive the *subjective succession* of apprehension from the *objective succession* of appearances, since otherwise the former is entirely undetermined and does not distinguish any appearance from any other. The subjective succession alone proves nothing about the connection of the manifold in the object, because it is entirely arbitrary. The objective succession, then, will consist in the order of the manifold of appearance according to which the apprehension of the one (what happens) follows that of the other (what precedes) *according to a rule*. Only thereby can I be entitled to say of the appearance itself, and not merely of my apprehension, that a succession is to be found in it. This amounts to saying that I cannot arrange the apprehension otherwise than in precisely this succession.

According to such a rule, then, there must lie in what in general precedes an event the condition for a rule according to which this event always and necessarily follows. But I cannot, conversely, go back from the event and determine (through apprehension) what precedes it. For no appearance goes back from the following point of time to the previous one, though it does relate *to some previous one*; from a given time, on the other hand, the advance to the determinate following time is necessary. Therefore, since there certainly is something that follows, I must necessarily relate it to something else in general that precedes it and upon which it follows according to a rule, that is, necessarily. In this way the event, as the conditioned, gives reliable indication of some condition, while that condition determines the event.

Suppose that nothing preceded an event upon which it had to follow according to a rule. Then all succession of perception would be [171] merely in apprehension, that is, merely subjective, and it would not thereby be objectively determined at all which

of the perceptions must really be the preceding and which the following. In this way we would have only a play of representations that related to no object at all. That is, through our perception no appearance would be distinguished at all from any other as to temporal relation. For the succession in apprehending is everywhere the same, and so there is nothing in the appearance that determines it in such a way that a certain succession is thereby made objectively necessary. I shall therefore not say that in the appearance two states follow one another, but only that one apprehension follows the other. This is merely something *subjective*; it determines no object, and so cannot count as cognition of any object (not even in appearance).

So when we experience that something happens, we always presuppose that something precedes it, upon which it follows according to a rule. For without this I would not say of the object that it follows. The mere succession in my apprehension, if it is not determined by a rule in relation to something preceding, does not justify any succession in the object. So it is always with reference to a rule, according to which appearances in their succession—that is, as they happen—are determined by the previous state, that I make my subjective synthesis (of apprehension) objective. And only under this presupposition is even the experience of something that happens possible.

It does seem, to be sure, as if this contradicts all the observations that have always been made about the course of our use of the understanding. According to these, it is only through perceiving and comparing the agreeing successions of many events upon preceding appearances that we are first led to discover a rule according to which certain events always follow certain appearances, and are thereby first prompted to form the concept of cause. On this footing the concept would be merely empirical, and the rule it supplies—that everything that happens has a cause—would be just as contingent as experience itself. Its universality and necessity would then be merely fictitious and would have no true universal validity, since they would be grounded not *a priori* but only on induction. But the

case here is the same as with other pure representations [172] *a priori* (for example, space and time). We can extract these from experience as clear concepts only because we had put them into experience, and so had first brought experience about through them. Of course, the logical clarity of this representation of a rule determining the series of events, as a concept of cause, is possible only once we have made use of it in experience. But regard for it, as the condition of the synthetic unity of appearances in time, was nevertheless the ground of experience itself, and so preceded it *a priori*.

What matters, then, is to show by an example that we never—even in experience—ascribe succession (of an event, in which something happens that was not there before) to the object, and distinguish it from the subjective succession of our apprehension, except when a rule lies at the foundation that compels us to observe this order of perceptions rather than another. Indeed, it is really this compulsion that first makes possible the representation of a succession in the object.

We have representations in us, of which we can also become conscious. But however far this consciousness may extend, and however exact or precise it may be, they still remain only representations, that is, inner determinations of our mind in this or that temporal relation. How, then, do we come to posit an object for these representations, or to ascribe to them, beyond their subjective reality as modifications, some objective reality or other—I know not what? Objective meaning cannot consist in the relation to another representation (of what one would want to call the object). For then the question arises again: how does this representation in turn go out beyond itself and acquire objective meaning over and above the subjective meaning that belongs to it as a determination of the state of the mind? If we investigate what new character the *relation to an object* gives our representations, and what dignity they thereby acquire, we find that it does nothing more than make the combination of representations necessary in a certain way and subject it to a rule. Conversely, we find that it is only because a certain order in the

temporal relation of our representations is necessary that objective meaning is conferred on them.

In the synthesis of appearances the manifold of representations always follows one after another. Now through this no object at all [173] is represented, since through this succession, which is common to all apprehensions, nothing is distinguished from anything else. But as soon as I perceive, or assume in advance, that in this succession there is a relation to the preceding state, from which the representation follows according to a rule, something represents itself as an event, or as what happens. That is, I cognize an object that I must place in time at a certain determinate position, which, given the preceding state, cannot be assigned to it otherwise. So when I perceive that something happens, this representation contains, first, that something precedes, because it is precisely in relation to this that the appearance acquires its temporal relation—namely, to exist after a preceding time in which it was not. But it can acquire its determinate position in time within this relation only if something is presupposed in the preceding state upon which it always follows, that is, follows according to a rule. From this it follows, first, that I cannot reverse the series and place what happens before that upon which it follows; and second, that if the preceding state is posited, this determinate event follows inevitably and necessarily. Thus it comes about that an order arises among our representations in which the present (insofar as it has come to be) points to some preceding state as a correlate—though one still undetermined—of this occurrence that is given. This correlate, however, relates to the occurrence as its consequence, determining it, and connects it necessarily with itself in the time series.

Now if it is a necessary law of our sensibility, and hence *a formal condition* of all perceptions, that the preceding time necessarily determines the following (since I cannot arrive at the following except through the preceding), then it is also an indispensable *law of the empirical representation* of the time series that the appearances of past time determine every existence in

the following time, and that these, as events, do not take place except insofar as the former determine their existence in time, that is, fix it according to a rule. For *only in appearances can we cognize empirically this continuity in the connection of times*.

Understanding belongs to all experience and its possibility, and the first thing it contributes is not to make the representation of objects distinct, but to make the representation of an object in general possible. It does this by transferring the order of time [174] to appearances and their existence. To each of them, as a consequence, it assigns a position in time determined *a priori* with respect to the preceding appearances; without such a position the appearance would not agree with time itself, which determines *a priori* the position of all its parts. Now this determination of position cannot be borrowed from the relation of appearances to absolute time (for absolute time is no object of perception). On the contrary, the appearances must determine for one another their positions in time itself, and make these necessary in the temporal order. That is, what follows or happens must follow, according to a universal rule, upon what was contained in the previous state. From this there arises a series of appearances which, by means of the understanding, produces and makes necessary in the series of possible perceptions the very same order and continuous connection that is found *a priori* in the form of inner intuition (time), in which all perceptions would have to have their position.

That something happens, then, is a perception that belongs to a possible experience. This experience becomes actual when I regard the appearance as determined as to its position in time, and hence as an object that can always be found according to a rule in the connection of perceptions. But this rule for determining something according to temporal succession is that the condition under which the event always (that is, necessarily) follows is to be found in what precedes. Thus the principle of sufficient reason is the ground of possible experience—namely, of

the objective cognition of appearances with respect to their relation in the successive order of time.[4]

The ground of proof of this proposition, however, rests solely on the following moments. All empirical cognition involves the synthesis of the manifold by the imagination, which is always successive; that is, in it the representations always follow one another. But in the imagination the succession is not determined at all as to order (what must precede and what must follow), and the series of representations following one another can be taken backward just as well as forward. If, however, this synthesis is a synthesis of apprehension (of the manifold of a given appearance), then the order is determined in the object—or, to speak more exactly, there is in it an order of successive synthesis that determines an object, according to which something must necessarily precede, [175] and, once this is posited, the other must necessarily follow. If, then, my perception is to contain the cognition of an event—namely, that something actually happens—it must be an empirical judgment in which one thinks that the succession is determined; that is, that it presupposes another appearance in time upon which it follows necessarily, or according to a rule. Otherwise, if I posited what precedes and the event did not necessarily follow upon it, I would have to take it for merely a subjective play of my imaginings; and if I nevertheless represented something objective by it, I would have to call it a mere dream. Therefore the relation of appearances (as possible perceptions) according to which what follows (what happens) is determined in time, as to its existence, by something preceding, necessarily and according to a rule—and hence the relation of cause to effect—is the condition of the objective validity of our empirical judgments with respect to the series of perceptions, and so of their empirical truth, and thus of experience. The principle of the causal relation in the succession of appearances therefore holds for all objects of experience (under

4 Principle of sufficient reason (*Satz vom zureichenden Grunde*): the rule, central to Leibniz and Wolff, that nothing is without a ground for its being so rather than otherwise.

the conditions of succession), because it is itself the ground of the possibility of such experience.

Here, however, a further misgiving arises that must be removed. The principle of causal connection among appearances is restricted in our formula to their successive order, whereas in using it we find that it also fits their accompaniment, and that cause and effect can be simultaneous. For example, there is warmth in a room that is not found in the open air. I look around for the cause and find a heated stove. Now the stove, as cause, is simultaneous with its effect, the warmth of the room. So here there is no successive order in time between cause and effect; they are simultaneous, and yet the law holds. The greater part of the efficient causes in nature are simultaneous with their effects, and the temporal succession of the effects comes about only because the cause cannot accomplish its whole effect in one instant. But at the instant when the effect first arises, it is always simultaneous with the causality of its cause; for if the cause had ceased to be an instant before, the effect would never have arisen. Here one must note carefully that what matters is the *order* of time and not its *lapse*: [176] the relation remains even if no time has elapsed. The time between the causality of the cause and its immediate effect can be *vanishing* (so that they are simultaneous), but the relation of the one to the other still always remains determinable in time. If I regard as a cause a ball that lies on a stuffed cushion and presses a dent into it, the ball is simultaneous with the effect. Yet I still distinguish the two through the temporal relation of their dynamical connection. For if I lay the ball on the cushion, the dent follows upon the cushion's previous smooth shape; but if the cushion has a dent (from I know not where), a lead ball does not follow upon it.

Accordingly, temporal succession is indeed the sole empirical criterion of the effect in relation to the causality of the cause that precedes it. The glass is the cause of the water's rising above its horizontal surface, even though both appearances are simultaneous. For as soon as I draw water with the glass from a

larger vessel, something follows—namely, the alteration of the horizontal level it had there into a concave one, which it takes on in the glass.

This causality leads to the concept of action, action to the concept of force, and thereby to the concept of substance. My critical project is concerned solely with the sources of synthetic cognition *a priori*, and I do not want to mix it up with analyses that concern merely the elucidation (not the extension) of concepts. So I leave the detailed discussion of these concepts to a future system of pure reason—although such analysis is already found in abundance in the familiar textbooks of this kind. But I cannot leave untouched the empirical criterion of a substance, insofar as substance seems to reveal itself not through the persistence of appearance but better and more easily through action.

Where there is action, and hence activity and force, there is also substance, and in substance alone must the seat of that fruitful source of appearances be sought. That is very well said. But if one is to explain what one understands by substance, and wishes in doing so to avoid a vicious circle, the answer is not so easy. How is one to infer directly from action to the *persistence* of the agent—which is, after all, so essential and distinctive [177] a mark of substance (*phaenomenon*)? But on the basis of what we said earlier, the solution of the question is not so difficult, though by the common method (proceeding merely analytically with one's concepts) it would be quite insoluble. Action already signifies the relation of the subject of causality to the effect. Now since all effect consists in what happens, and hence in the changeable, which marks time as to succession, the ultimate subject of the changeable is *the persistent*, as the substratum of everything that changes—that is, substance. For according to the principle of causality, actions are always the first ground of all change of appearances, and so cannot lie in a subject that itself changes; otherwise other actions, and another subject determining this change, would be required. By virtue of this, action proves substantiality as a sufficient empirical criterion, without

my first needing to seek out the persistence of the subject by comparing perceptions. Nor could this be done by that route with the thoroughness required by the magnitude and strict universal validity of the concept. For that the first subject of the causality of all arising and perishing cannot itself (in the field of appearances) arise and perish is a sure inference, and it leads to empirical necessity and persistence in existence, and hence to the concept of a substance as appearance.

When something happens, the mere arising, without regard to what arises, is already in itself an object of investigation. The transition from the non-being of a state into this state, even supposing that this state contained no quality in appearance, already by itself needs to be investigated. This arising, as was shown in section A, concerns not substance (for substance does not arise) but its state. It is therefore merely alteration, and not origination out of nothing. If this origination is regarded as the effect of an alien cause, it is called creation. Creation cannot be admitted as an event among appearances, since its very possibility would already abolish the unity of experience. However, if I consider all things not as phenomena but as things in themselves and as objects of the mere understanding, then, although they are substances, they can nevertheless be regarded as dependent in their existence on an alien cause. But this would then [178] carry with it entirely different meanings of the words, and would not fit appearances as possible objects of experience.

Now how anything at all can be altered—how it is possible that one state at one point of time can be followed by an opposite state at another—of this we have not the least concept *a priori*. For this, acquaintance with actual forces is required, which can be given only empirically: for example, with moving forces, or, what comes to the same thing, with certain successive appearances (as motions) that indicate such forces. But the form of every alteration—the condition under which alone it can take place, as the arising of another state (whatever its content, that is, the state that is altered, may be), and hence the succession of the states itself (what has happened)—can nevertheless be con-

sidered *a priori* according to the law of causality and the conditions of time.[5]

When a substance passes from one state, a, into another, b, the point of time of the second state is distinct from the point of time of the first, and follows it. Likewise the second state, as reality (in appearance), is distinguished from the first, in which this reality was not, as b is from zero. That is, even if state b differed from state a only in magnitude, the alteration is an arising of b − a, which was not in the previous state, and with respect to which that state = 0.

The question, then, is how a thing passes from a state = a into another state = b. Between two instants there is always a time, and between two states in them there is always a difference that has a magnitude (for all parts of appearances are always themselves magnitudes). Thus every transition from one state into another takes place in a time contained between two instants, of which the first determines the state from which the thing emerges, the second the state into which it arrives. Both are therefore boundaries of the time of an alteration, and so of the intermediate state between the two states, and [179] as such they belong to the whole alteration. Now every alteration has a cause, which manifests its causality in the whole time in which the alteration takes place. So this cause brings about its alteration not suddenly (all at once, or in one instant) but in a time, so that, as the time grows from the initial instant a to its completion in b, the magnitude of the reality (b − a) is likewise generated through all the smaller degrees contained between the first and the last. All alteration is therefore possible only through a continuous action of causality, which, insofar as it is uniform, is called a moment. The alteration does not consist of these moments, but is generated by them as their effect.

This, then, is the law of the continuity of all alteration. Its ground is this: neither time nor appearance in time consists of

parts that are the smallest, and yet in its alteration the state of the thing passes through all these parts, as elements, to its second state. *No difference* of the real in appearance is *the smallest*, just as no difference in the magnitude of times is; and so the new state of reality grows from the first, in which this reality was not, through all the infinite degrees of it, whose differences from one another are all smaller than the difference between 0 and a.

What use this proposition may have in the investigation of nature does not concern us here. But how such a proposition, which seems to extend our cognition of nature so far, is possible completely *a priori*—this very much requires our examination, even though the plain evidence shows that it is actual and correct, so that one might think oneself relieved of the question of how it was possible. For there are so many kinds of groundless pretensions to extend our cognition through pure reason that it must be adopted as a general principle to be thoroughly distrustful on that account, and, without documents that can furnish a thorough deduction, to believe and accept nothing of the sort even on the clearest dogmatic proof.

All growth of empirical cognition, and every advance of perception, is nothing but an extension of the determination of inner sense, that is, a progression in time, whatever the objects may be, appearances or pure intuitions. This progression in time determines everything, and is itself determined by nothing [180] further. That is, its parts are given only in time and through the synthesis of time, and not prior to that synthesis. For this reason every transition in perception to something that follows in time is a determination of time through the generation of this perception. And since time is always, and in all its parts, a magnitude, such a transition is the generation of a perception as a magnitude through all degrees, none of which is the smallest,

5 KANT'S NOTE. Note well that I am speaking not of the alteration of certain relations in general, but of alteration of state. Hence when a body moves uniformly, it does not alter its state (of motion) at all; but it does when its motion increases or decreases.

from zero up to its determinate degree. From this, then, the possibility of cognizing a law of alterations *a priori*, as to their form, becomes evident. We are only anticipating our own apprehension, whose formal condition, since it dwells in us prior to any given appearance, must certainly be capable of being cognized *a priori*.

Accordingly, just as time contains the sensible condition *a priori* of the possibility of a continuous progression of what exists to what follows, so the understanding, by means of the unity of apperception, is the condition *a priori* of the possibility of a continuous determination of all positions for appearances in this time. It does so through the series of causes and effects, of which the former inevitably bring after them the existence of the latter, and thereby make the empirical cognition of temporal relations valid for every time (universally), and hence objectively valid.

C. THIRD ANALOGY: PRINCIPLE OF SIMULTANEITY ACCORDING TO THE LAW OF RECIPROCAL ACTION, OR COMMUNITY

All substances perceived as simultaneous in space stand in thoroughgoing reciprocal action.

All substances, insofar as they can be perceived in space as simultaneous, are in thoroughgoing reciprocal action.

PROOF

Simultaneity can be cognized only if substances determine one another's positions in time.

Things are *simultaneous* when, in empirical intuition, the perception of the one can follow the perception of the other *reciprocally* [181] (which cannot happen in the temporal sequence of appearances, as was shown in the case of the second principle). Thus I can direct my perception first to the moon and afterward to the earth, or, conversely, first to the earth and then to the moon; and because the perceptions of these objects can follow

one another reciprocally, I say that they exist simultaneously. Now simultaneity is the existence of the manifold at the same time. But we cannot perceive time itself, so as to infer from things' being placed in the same time that their perceptions can follow one another reciprocally. The synthesis of the imagination in apprehension would therefore present each of these perceptions only as one that is present in the subject when the other is not, and vice versa. It would not present the objects as simultaneous—that is, that if the one exists, the other also exists at the same time, and that this is necessary in order for the perceptions to be able to follow one another reciprocally. Consequently, a concept of the understanding of the reciprocal sequence of the determinations of these things, which exist simultaneously outside one another, is required in order to say that the reciprocal sequence of perceptions is grounded in the object, and thereby to represent the simultaneity as objective. Now the relation of substances in which one contains determinations whose ground is contained in the other is the relation of influence; and when each reciprocally contains the ground of the determinations in the other, it is the relation of community or reciprocal action. Thus the simultaneity of substances in space cannot be cognized in experience except on the presupposition of reciprocal action among them. This reciprocal action is therefore also the condition of the possibility of the things themselves as objects of experience.

Things are simultaneous insofar as they exist in one and the same time. But how do we cognize that they are in one and the same time? When the order in the synthesis of the apprehension of this manifold is indifferent—that is, when it can go from A through B, C, D to E, or also, conversely, from E to A. For if the manifold were successive in time (in the order that begins with A and ends in E), it would be impossible to begin the apprehension with the perception of E and proceed backward to A, since A belongs to past time and so can no longer be an object of apprehension.

Now suppose that in a multiplicity of substances as appearances [182] each of them were completely isolated—that is, none acted on another or received influences from it in return. Then I say that their *simultaneity* would not be an object of any possible perception, and that the existence of one could not lead by any path of empirical synthesis to the existence of another. For if you think of them as separated by a completely empty space, then the perception that proceeds in time from one to the other would indeed determine the existence of the latter by means of a subsequent perception, but it could not distinguish whether this appearance follows the first objectively or is rather simultaneous with it.

There must therefore be something besides mere existence by which A determines B's position in time, and B in turn determines A's, because only under this condition can these substances be represented empirically as *existing simultaneously*. Now only that which is the cause of another thing, or of its determinations, determines that other thing's position in time. Therefore each substance (since it can be a consequence only with respect to its determinations) must contain within itself the causality of certain determinations in the other, and at the same time the effects of the other's causality. That is, they must stand in dynamical community (immediately or mediately) if simultaneity is to be cognized in any possible experience. Now everything is necessary with respect to objects of experience without which the experience of these objects would itself be impossible. Therefore it is necessary for all substances in appearance, insofar as they are simultaneous, to stand in thoroughgoing community of reciprocal action with one another.

The word *Gemeinschaft* is ambiguous in our language: it can mean *communio* [community, sharing], but also *commercium* [interchange, mutual dealings]. We use it here in the latter sense, as a dynamical community, without which even local community (*communio spatii* [community of space]) could never

be cognized empirically.[6] It is easy to notice in our experiences that only continuous influences at every point of space can lead our sense from one object to another; that the light playing between our eye and the heavenly bodies brings about a mediate community between us and them, and thereby proves their simultaneity; that we cannot change place empirically (perceive this change) unless matter everywhere makes the [183] perception of our position possible for us; and that only by means of its reciprocal influence can matter demonstrate its simultaneity, and thereby the coexistence of things right up to the most remote objects (though only mediately). Without community, every perception (of appearance in space) is broken off from every other, and the chain of empirical representations, that is, experience, would begin entirely afresh with each new object, without the preceding one being in the least connected with it or standing in any temporal relation to it. I do not mean by this to refute empty space at all; for it may well exist where perceptions do not reach, and where there is therefore no empirical cognition of simultaneity. But then it is no object at all for any of our possible experience.

The following may serve as an elucidation. In our mind, all appearances, as contained in a possible experience, must stand in community (*communio*) of apperception; and insofar as the objects are to be represented as connected, existing simultaneously, they must reciprocally determine their position in one time and thereby make up a whole. If this subjective community is to rest on an objective ground, or to be referred to appearances as substances, then the perception of the one must, as ground, make possible the perception of the other, and vice versa. Only so will the succession that is always present in perceptions, as apprehensions, not be attributed to the objects; instead, the objects can be represented as existing simultaneously. But this is a reciprocal influence, that is, a real community (*commercium*) of substances, without which the empir-

6 *Gemeinschaft* is rendered "community" throughout, and *Wechselwirkung* "reciprocal action."

ical relation of simultaneity could not occur in experience. Through this *commercium*, appearances, insofar as they stand outside one another and yet in connection, make up a composite (*compositum reale* [real composite]), and composites of this kind are possible in many ways. The three dynamical relations from which all the others arise are therefore those of inherence, of consequence, and of composition.

These, then, are the three analogies of experience. They are nothing but principles for determining the existence of appearances in time according to all three of its *modi* [modes]: the relation to [184] time itself as a magnitude (the magnitude of existence, that is, duration); the relation in time as a series (one after another); and finally the relation in time as a sum total of all existence (simultaneously). This unity of time-determination is dynamical through and through. That is, time is not regarded as that in which experience would immediately determine the position of each existence. That is impossible, because absolute time is not an object of perception with which appearances could be held together. Rather, the rule of the understanding, through which alone the existence of appearances can acquire synthetic unity according to relations of time, determines for each of them its position in time—hence *a priori*, and validly for each and every time.

By nature (in the empirical sense) we understand the connection of appearances as regards their existence according to necessary rules, that is, according to laws. There are, therefore, certain laws, and indeed *a priori* laws, that first make a nature possible. Empirical laws can occur and be found only by means of experience, and indeed in consequence of those original laws according to which experience itself first becomes possible. Our analogies therefore really present the unity of nature in the connection of all appearances under certain exponents. These exponents express nothing but the relation of time (insofar as it comprehends all existence within itself) to the unity of apperception, which can occur only in synthesis according to rules. Together, then, they say: all appearances lie in one nature, and

must lie in it, because without this *a priori* unity no unity of experience, and hence no determination of objects in it, would be possible.

A remark must be made, however, about the method of proof we have used for these transcendental laws of nature, and about its peculiar character. This remark must be very important as a rule for every other attempt to prove propositions *a priori* that are intellectual and at the same time synthetic. Suppose we had wanted to prove these analogies dogmatically, that is, from concepts: namely, that everything that exists is found only in what is persistent; that every event presupposes something in the preceding state which it follows according to a rule; and finally that in the manifold that is simultaneous, the states are simultaneous in relation to one another according to a rule (stand in community). Then all our effort would have been entirely in vain. For from one object and its existence we can never arrive at the existence of another, or at its way of [185] existing, through mere concepts of these things, however we may analyze them. What, then, was left to us? The possibility of experience, as a cognition in which all objects must ultimately be able to be given to us if their representation is to have objective reality for us. In this third thing, whose essential form consists in the synthetic unity of the apperception of all appearances, we found *a priori* conditions of the thoroughgoing and necessary time-determination of all existence in appearance, without which even empirical time-determination would be impossible. And we found rules of synthetic unity *a priori* by means of which we could anticipate experience. For lack of this method, and in the delusion that synthetic propositions which the experiential use of the understanding recommends as its principles could be proved dogmatically, it has come about that a proof of the principle of sufficient reason has so often been attempted, but always in vain. Of the other two analogies no one has even

thought, although they have always been tacitly used,[7] because the guiding thread of the categories was lacking—the thread that alone can discover and make noticeable every gap of the understanding, in concepts as well as in principles.

4. THE POSTULATES OF EMPIRICAL THINKING IN GENERAL

Kant states what it means for a thing to be possible, actual and necessary in experience.

1. Whatever agrees with the formal conditions of experience (as regards intuition and concepts) is *possible*.

2. Whatever is connected with the material conditions of experience (sensation) is *actual*.

[186] 3. That whose connection with the actual is determined according to universal conditions of experience is (exists) *necessarily*.

ELUCIDATION

The modal categories add nothing to a concept; they express its relation to the faculty of cognition.

The categories of modality have this peculiarity: as a determination of the object, they do not in the least enlarge the concept to which they are attached as predicates, but express only its relation to the faculty of cognition. Even when the concept of a thing is already entirely complete, I can still ask about this object whether it is merely possible or also actual, or, if it is actual, whether it is also necessary. No further determinations

7 KANT'S NOTE. The unity of the world-whole, in which all appearances are supposed to be connected, is obviously a mere consequence of the tacitly assumed principle of the community of all substances that are simultaneous. For if they were isolated, they would not make up a whole as parts; and if their connection (the reciprocal action of the manifold) were not already necessary for the sake of simultaneity, we could not infer from simultaneity, as a merely ideal relation, to connection as a real one. We have shown in its proper place, however, that community is really the ground of the possibility of an empirical cognition of coexistence, and that we therefore really infer only from the latter back to the former as its condition.

in the object itself are thought by this. The only question is how the object (together with all its determinations) is related to the understanding and its empirical use, to the empirical power of judgment, and to reason (in its application to experience).

For precisely this reason, the principles of modality are nothing more than explanations of the concepts of possibility, actuality, and necessity in their empirical use, and at the same time restrictions of all the categories to merely empirical use, neither admitting nor permitting their transcendental use. For if the categories are not to have a merely logical meaning and analytically express the form of *thinking*, but are to concern *things* and their possibility, actuality, or necessity, they must bear on possible experience and its synthetic unity, in which alone objects of cognition are given.

The postulate of the possibility of things thus requires that their concept agree with the formal conditions of an experience in general. But this—namely, the objective form of experience in general—contains all the synthesis that is required for the cognition of objects. A concept that contains a synthesis is to be regarded as empty, and refers to no object, if this synthesis does not belong to experience. It may belong to experience either as borrowed from it, in which case the concept is called an *empirical concept*, or as a synthesis on which, as an *a priori* condition, experience in general (its form) rests; in that case it is a *pure concept*, which nevertheless belongs to experience, because its object can be encountered only in experience. For where would we get the mark [187] of the possibility of an object that has been thought through a synthetic concept *a priori*, if not from the synthesis that constitutes the form of the empirical cognition of objects? That such a concept must contain no contradiction is, to be sure, a necessary logical condition; but it is far from sufficient for the concept's objective reality, that is, for the possibility of such an object as is thought through the concept. Thus in the concept of a figure enclosed between two straight lines there is no contradiction, for the concepts of two straight lines and of their meeting contain no negation of a figure. The impossibility

rests not on the concept in itself, but on its construction in space, that is, on the conditions of space and of its determination. These conditions, however, have in turn their objective reality—that is, they bear on possible things—because they contain within themselves *a priori* the form of experience in general.

And now we shall set out the wide usefulness and influence of this postulate of possibility. If I represent to myself a thing that is persistent, so that everything that changes belongs merely to its state, I can never cognize from such a concept alone that a thing of this kind is possible. Or I represent to myself something that is supposed to be so constituted that, if it is posited, something else always and inevitably follows upon it. This may well be thinkable without contradiction; but whether such a property (as causality) is to be met with in any possible thing cannot be judged from this. Finally, I can represent to myself various things (substances) so constituted that the state of one brings about a consequence in the state of another, and so reciprocally. But whether a relation of this kind can belong to any things at all cannot be gathered from these concepts, which contain a merely arbitrary synthesis. Only from the fact that these concepts express *a priori* the relations of perceptions in every experience do we cognize their objective reality, that is, their transcendental truth. We cognize it, admittedly, independently of experience, but not independently of all relation to the form of an experience in general and to the synthetic unity in which alone objects can be empirically cognized.

But if we wanted to make entirely new concepts of substances, of forces, [188] of reciprocal actions, out of the material that perception offers us, without borrowing the example of their connection from experience itself, we would fall into sheer figments of the brain, whose possibility has no mark whatever to go by, because in their case we neither accept experience as our teacher nor borrow these concepts from it. Invented concepts of this kind cannot acquire the mark of their possibility *a priori*, as the categories do, as conditions on which all experi-

ence depends, but only *a posteriori*, as concepts given through experience itself. Their possibility must either be cognized *a posteriori* and empirically, or it cannot be cognized at all. A substance that would be persistently present in space yet without filling it (like that intermediate thing between matter and thinking beings that some have wished to introduce); or a special fundamental power of our mind to *intuit* the future in advance (not merely to infer it); or, finally, a capacity of the mind to stand in a community of thoughts with other human beings (however distant they may be)—these are concepts whose possibility is entirely groundless. For their possibility cannot be grounded on experience and its known laws, and without experience it is an arbitrary combination of thoughts which, although it contains no contradiction, can make no claim to objective reality, and hence none to the possibility of such an object as one here wishes to think.[8] As for reality, it goes without saying that we cannot think such a thing *in concreto* without calling on the aid of experience. For reality can bear only on sensation, as the matter of experience, and does not concern the form of relation, with which one might at most play in fictions.

But I pass over everything whose possibility can be gathered only from its actuality in experience, and consider here only the possibility of things through concepts *a priori*. Of such things I continue to maintain that their possibility can never obtain from such concepts taken by themselves alone, but always only from these concepts as formal and objective conditions of an experience in general.

It does seem as if the possibility of a triangle could be cognized from its concept in itself (the concept is certainly independent of experience); for in fact we can give it an object entirely *a priori*, that is, construct it. But since [189] this is only the form of an object, the triangle would still always remain merely a product of the imagination, and the possibility of its object would remain doubtful. For that, something more is required:

8 These examples recall the claims of spirit-seers such as Emanuel Swedenborg (1688–1772), whom Kant had satirized in *Dreams of a Spirit-Seer* (1766).

namely, that such a figure be thought under nothing but the conditions on which all objects of experience rest. Now, that space is a formal *a priori* condition of outer experiences, and that the very same formative synthesis by which we construct a triangle in the imagination is entirely identical with the synthesis we exercise in apprehending an appearance in order to make an empirical concept of it—this alone is what connects the representation of the possibility of such a thing with this concept. In the same way, the possibility of continuous magnitudes, indeed of magnitudes in general, since the concepts of them are all synthetic, never becomes clear from the concepts themselves, but only from them as formal conditions of the determination of objects in experience in general. And where, indeed, would we look for objects corresponding to the concepts, if not in experience, through which alone objects are given to us? Nevertheless, without first having experience itself, we can cognize and characterize the possibility of things merely with reference to the formal conditions under which anything at all is determined as an object in experience—hence completely *a priori*, but still only with reference to experience and within its boundaries.

The postulate for cognizing the *actuality* of things requires *perception*, and hence sensation of which one is conscious. It does not require immediate perception of the very object whose existence is to be cognized, but it does require the object's connection with some actual perception according to the analogies of experience, which set out all real connection in an experience in general.

In the *mere concept* of a thing no mark of its existence can be found at all. For however complete the concept may be, so that nothing whatever is lacking for thinking a thing with all its inner determinations, existence has nothing at all to do with all this. It has to do only with the question whether such a thing is given to us, so that the perception of it could, if need be, precede the concept. For the concept's preceding the perception signifies the thing's mere possibility; but perception, which supplies the material for the concept, is the sole mark of [190] actuality. We can,

however, also cognize the existence of a thing before perceiving it, and thus comparatively *a priori*, provided only that it is connected with some perceptions according to the principles of their empirical connection (the analogies). For then the existence of the thing is still connected with our perceptions in a possible experience, and, guided by those analogies, we can get from our actual perception to the thing in the series of possible perceptions. Thus we cognize the existence of a magnetic matter penetrating all bodies from the perception of attracted iron filings, although an immediate perception of this matter is impossible for us, given the constitution of our organs. For in general, according to the laws of sensibility and the context of our perceptions in an experience, we would also come upon the immediate empirical intuition of this matter if our senses were finer; their coarseness has nothing to do with the form of possible experience in general. So wherever perception and whatever attaches to it according to empirical laws extends, there too extends our cognition of the existence of things. If we do not begin from experience, or do not proceed according to laws of the empirical connection of appearances, it is vain for us to pride ourselves on being able to guess or explore the existence of any thing. A powerful objection to these rules for proving existence mediately, however, is raised by *idealism*, and this is the right place for its refutation.

REFUTATION OF IDEALISM

Kant distinguishes Descartes's problematic idealism from Berkeley's dogmatic idealism.

Idealism (I mean *material* idealism) is the theory that declares the existence of objects in space outside us to be either merely doubtful and *indemonstrable*, or false and *impossible*. The *first* is the *problematic* idealism of *Descartes*, who declares only one empirical assertion (*assertio*) to be beyond doubt, namely: *I am*. The *second* is the *dogmatic* idealism of *Berkeley*, who declares space, [191] together with all the things to which it attaches as an

inseparable condition, to be something impossible in itself, and therefore also declares the things in space to be mere imaginings. Dogmatic idealism is unavoidable if one regards space as a property that is supposed to belong to things in themselves; for then space, with everything for which it serves as condition, is an absurdity.[9] The ground of this idealism, however, has been removed by us in the transcendental aesthetic. Problematic idealism, which asserts nothing on this point but only professes our inability to prove an existence outside our own through immediate experience, is reasonable and in keeping with a thorough philosophical way of thinking: namely, to permit no decisive judgment before a sufficient proof has been found. The proof that is demanded must therefore establish that we have *experience* of outer things, and not merely *imagination*. And this can hardly be done except by proving that even our *inner* experience, which Descartes did not doubt, is possible only on the presupposition of *outer* experience.

THEOREM

Empirically determined consciousness of my own existence proves that objects exist in space outside me.

The mere, but empirically determined, consciousness of my own existence proves the existence of objects in space outside me.

PROOF

Determining my existence in time requires something persistent, which can only be a thing outside me.

I am conscious of my existence as determined in time. All time-determination presupposes something *persistent* in perception. But this persistent thing cannot be something in me, because it is precisely through this persistent thing that my existence in time can first be determined. Therefore the perception of this

9 René Descartes (1596–1650), here under his Latin name Cartesius, whose *Meditations* (1641) doubt everything but the thinker's own existence.

persistent thing is possible only through a thing outside me, and not through the mere *representation* of a thing outside me. Consequently, the determination of my existence in time is possible only through the existence of actual things that I perceive outside me. Now consciousness in time is necessarily bound up with consciousness of the possibility of this time-determination. Therefore it is also necessarily bound up with the existence of things outside me, as the condition of time-determination. That is, the consciousness of my own existence [192] is at the same time an immediate consciousness of the existence of other things outside me.

Remark 1. In the preceding proof one becomes aware that the game idealism played is turned back on it, with greater justice. Idealism assumed that the only immediate experience is inner experience, and that from it outer things are only *inferred*—and only unreliably, as always happens when one infers from given effects to *determinate* causes, since the cause of the representations that we ascribe, perhaps falsely, to outer things may also lie in ourselves. Here, however, it is proved that outer experience is really immediate,[10] and that only by means of it is inner experience possible—not, indeed, the consciousness of our own existence, but its determination in time. Of course the representation *I am*, which expresses the consciousness that can accompany all thinking, is what immediately includes the existence of a subject within itself. But it is not yet any *cognition* of that subject, and hence not empirical cognition, that is, experience. For experience requires, besides the thought of something existing, intuition as well—here inner intuition—with respect to

10 KANT'S NOTE. The *immediate* consciousness of the existence of outer things is not presupposed in the preceding theorem but proved, whether or not we have insight into the possibility of this consciousness. The question about that possibility would be whether we have only an inner sense and no outer one, but merely outer imagination. It is clear, however, that in order even to imagine something as outer—that is, to present it to sense in intuition—we must already have an outer sense, and must thereby immediately distinguish the mere receptivity of an outer intuition from the spontaneity that characterizes every act of imagination. For merely to imagine an outer sense as well would itself annihilate the faculty of intuition that is supposed to be determined by the imagination.

which, that is, to time, the subject must be determined; and for this, outer objects are absolutely required. Consequently, inner experience itself is possible only mediately, and only through outer experience.

Remark 2. With this, all use of our cognitive faculty in experience, in determining time, agrees perfectly. Not only can we perceive all time-determination only through change in outer relations (motion) in relation to what is persistent in space (for example, the motion of the sun with respect to objects on the earth); we have nothing persistent at all that we could [193] place under the concept of a substance as intuition except *matter* alone. And even this persistence is not drawn from outer experience, but is presupposed *a priori* as the necessary condition of all time-determination, and hence also as the determination of inner sense with respect to our own existence through the existence of outer things. The consciousness of myself in the representation *I* is not an intuition at all, but a merely *intellectual* representation of the self-activity of a thinking subject. Hence this I has not the least predicate of intuition that, *as persistent*, could serve as the correlate of time-determination in inner sense—as, for instance, *impenetrability* does in the case of matter as *empirical* intuition.

Remark 3. From the fact that the existence of outer objects is required for the possibility of a determinate consciousness of ourselves, it does not follow that every intuitive representation of outer things includes their existence as well. For such a representation may very well be the mere effect of the imagination (in dreams as well as in madness). But it is so only through the reproduction of former outer perceptions, which, as has been shown, are possible only through the actuality of outer objects. All that was to be proved here was that inner experience in general is possible only through outer experience in general. Whether this or that supposed experience is not mere imagination must be ascertained from its particular determinations and by holding it up against the criteria of all actual experience.

Finally, as regards the third postulate, it bears on material necessity in existence, and not on the merely formal and logical necessity in the connection of concepts. No existence of objects of the senses can be cognized completely *a priori*, but it can be cognized comparatively *a priori*, relative to another existence already given. Even then, however, we can arrive only at an existence that must be contained somewhere in the context of the experience of which the given perception is a part. Therefore the necessity of existence can never be cognized from concepts, but always only from connection with [194] what is perceived, according to universal laws of experience. Now there is no existence that could be cognized as necessary under the condition of other given appearances except the existence of effects from given causes according to laws of causality. So it is not the existence of things (substances) but only that of their state whose necessity we can cognize—and indeed from other states that are given in perception, according to empirical laws of causality. It follows that the criterion of necessity lies solely in the law of possible experience: that everything that happens is determined *a priori* by its cause in appearance. Hence we cognize only the necessity of *effects* in nature whose causes are given to us. And the mark of necessity in existence reaches no further than the field of possible experience; and even within this field it does not hold of the existence of things as substances, since these can never be regarded as empirical effects, or as something that happens and arises. Necessity therefore concerns only the relations of appearances according to the dynamical law of causality, and the possibility, grounded on it, of inferring *a priori* from some given existence (a cause) to another existence (the effect). Everything that happens is hypothetically necessary. This is a principle that subjects change in the world to a law, that is, to a rule of necessary existence, without which there would not even be nature at all. Hence the proposition "Nothing happens through blind chance" (*in mundo non datur casus* [in the world there is no chance]) is an *a priori* law of nature. So too is the proposition "No necessity in nature is

blind; it is conditioned, and hence intelligible, necessity" (*non datur fatum* [there is no fate]). Both are laws through which the play of changes is subjected to a *nature of things* (as appearances), or, what comes to the same, to the unity of the understanding, in which alone they can belong to one experience, as the synthetic unity of appearances. Both these principles belong to the dynamical ones. The first is really a consequence of the principle of causality (under the analogies of experience). The second belongs to the principles of modality; it adds to the determination of causality the concept of necessity, but of a necessity that stands under a rule of the understanding. The principle of continuity forbade, in the series of appearances (changes), any leap [195] (*in mundo non datur saltus* [in the world there is no leap]), and also, in the sum total of all empirical intuitions in space, any gap or cleft between two appearances (*non datur hiatus* [there is no gap]). For that is how we can express the proposition: nothing can enter experience that would prove a *vacuum* [void], or even admit one as a part of empirical synthesis. For as regards the void that one may think outside the field of possible experience (the world), this does not come before the jurisdiction of the mere understanding, which decides only questions concerning the use of given appearances for empirical cognition. It is a problem for idealizing reason, which goes beyond the sphere of a possible experience and wants to judge about what surrounds and bounds this sphere itself. It must therefore be considered in the transcendental dialectic. These four propositions (*in mundo non datur hiatus, non datur saltus, non datur casus, non datur fatum*) we could easily present, like all principles of transcendental origin, in their order according to the order of the categories, and prove the place of each. But the reader who is already practiced will do this for himself, or will easily discover the guiding thread for it. They all unite simply in this: to admit nothing into empirical synthesis that could infringe on or detract from the understanding and the continuous connection of all appearances, that is, the unity of its concepts. For it is in the understanding alone

that the unity of experience, in which all perceptions must have their place, becomes possible.

Whether the field of possibility is larger than the field that contains everything actual, and this in turn larger than the set of what is necessary—these are neat questions, and indeed questions of synthetic solution, but they too fall under the jurisdiction of reason alone. For they amount roughly to asking whether all things as appearances belong together in the sum total and context of a single experience, of which every given perception is a part that therefore could not be combined with any other appearances; or whether my perceptions can belong to more than one possible experience (in their general connection). The understanding gives *a priori* to experience in general only the rule according to the subjective and formal conditions of sensibility as well as of apperception, which alone make experience possible. Other forms of intuition (than space and time), and likewise other forms of understanding (than the discursive form [196] of thinking, or of cognition through concepts), even if they were possible, we could not in any way think up or make comprehensible to ourselves. And even if we could, they would still not belong to experience as the only cognition in which objects are given to us. Whether perceptions other than those belonging to our whole possible experience in general, and thus an entirely different field of matter, can exist, the understanding cannot decide; it has to do only with the synthesis of what is given. Moreover, the poverty of our ordinary inferences, by which we bring out a great realm of possibility of which everything actual (every object of experience) is supposed to be only a small part, is very conspicuous. Everything actual is possible; from this there follows naturally, according to the logical rules of conversion, the merely particular proposition: some possible things are actual. And this then seems to mean as much as: many things are possible that are not actual. It does seem, indeed, that one could also directly set the number of possible things above that of actual things, since something must still be added to the former to make up the latter. But I know of no such

addition to the possible. For whatever was to be added beyond it would be impossible. What can be added, and only to my understanding, is something beyond agreement with the formal conditions of experience: namely, connection with some perception. But whatever is connected with perception according to empirical laws is actual, even if it is not immediately perceived. But that, in thoroughgoing connection with what is given to me in perception, another series of appearances—and hence more than one all-encompassing experience—is possible, cannot be inferred from what is given; and still less without anything being given, since without material nothing at all can be thought. What is possible only under conditions that are themselves merely possible is not possible *in every respect*. But it is in this respect that the question is taken when one wants to know whether the possibility of things extends further than experience can reach.

I have mentioned these questions only so as to leave no gap in what, according to common opinion, belongs to the concepts of the understanding. In fact, however, absolute possibility (which is valid in every respect) is not a mere concept of the understanding and can in no way be of empirical use. It belongs solely to [197] reason, which goes beyond all possible empirical use of the understanding. We have therefore had to content ourselves here with a merely critical remark, and have otherwise left the matter in obscurity until we proceed further.

Since I am about to conclude this fourth number, and with it the system of all fundamental principles of pure understanding, I must still give a reason why I have called the principles of modality precisely postulates. I do not wish to take this expression here in the meaning that some recent philosophical writers have given it, against the sense of the mathematicians to whom it properly belongs: namely, that to postulate means to pass off a proposition as immediately certain without justification or proof. For if, in the case of synthetic propositions, however evident they may be, we were to concede that one may press them on unconditional assent without deduction, on the authority of

their own pronouncement, then all critique of the understanding is lost. And since there is no lack of bold pretensions, which even common belief does not refuse (though belief is no credential), our understanding will stand open to every delusion, unable to withhold its assent from pronouncements that, although illegitimate, demand to be admitted in the very same tone of confidence as actual axioms. If, then, a determination is added synthetically *a priori* to the concept of a thing, there must unfailingly be added to such a proposition, if not a proof, then at least a deduction of the legitimacy of its assertion.

The principles of modality, however, are not objectively synthetic, because the predicates of possibility, actuality, and necessity do not in the least enlarge the concept of which they are asserted by adding anything further to the representation of the object. But since they are nonetheless always synthetic, they are so only subjectively. That is, they add to the concept of a thing (of something real), about which they otherwise say nothing, the cognitive power in which the concept originates and has its seat. Thus, if the concept is connected in the understanding merely with the formal conditions of experience, its object is called possible; if it is connected with perception (sensation as the matter of the senses) and determined through perception by means of the understanding, the object is actual; if it is determined through the connection of perceptions according to concepts, the object is called necessary. [198] The principles of modality, therefore, say nothing else of a concept than the act of the cognitive faculty through which it is produced. Now in mathematics a postulate is the practical proposition that contains nothing but the synthesis by which we first give ourselves an object and produce its concept—for example, with a given line, to describe a circle on a plane from a given point. Such a proposition cannot be proved, because the procedure it demands is precisely that by which we first produce the concept of such a figure. With just the same right, then, we can postulate the principles of modality, because they do not enlarge their concept of

things in general,[11] but only indicate the way in which it is combined with the cognitive power at all.

GENERAL REMARK ON THE SYSTEM OF PRINCIPLES

The categories show their objective reality only in intuition, and indeed in outer intuition.

It is something very noteworthy that we cannot see into the possibility of any thing according to the mere category, but must always have an intuition at hand in order to display in it the objective reality of the pure concept of the understanding. Take, for example, the categories of relation. How (1) something can exist only as *subject* and not as a mere determination of other things, that is, can be *substance*; or how (2), because something is, something else must be, and hence how anything at all can be a cause; or (3) how, when several things exist, something can follow from the existence of one of them for the others, and so reciprocally, and in this way a community of substances can take place—none of this can be seen at all from mere concepts. The same holds of the remaining categories: for example, how a thing can be the same as many taken together, that is, can be a magnitude, and so on. As [199] long as intuition is lacking, therefore, we do not know whether we think an object through the categories, and whether any object whatever can belong to them at all. And so it is confirmed that by themselves they are not *cognitions* at all, but mere *forms of thought* for making cognitions out of given intuitions.—It is for this very reason, too, that no synthetic proposition can be made from mere categories. For example: in all existence there is substance, that is, something that can exist only as subject and not as mere predicate; or: every thing is a quantum, and so on, where there is nothing at all that could serve us to go beyond a given concept and connect

11 KANT'S NOTE. Through the *actuality* of a thing I do, of course, posit more than its possibility, but not *in the thing*. For the thing can never contain more in its actuality than was contained in its complete possibility. Rather, since possibility was merely a positing of the thing in relation to the understanding (its empirical use), actuality is at the same time a connection of the thing with perception.

another with it. Hence no one has ever succeeded in proving a synthetic proposition from mere pure concepts of the understanding—for example, the proposition: everything that exists contingently has a cause. One could never get further than proving that without this relation we could *not comprehend* the existence of the contingent at all, that is, could not cognize the existence of such a thing *a priori* through the understanding. But it does not follow from this that this same relation is also the condition of the possibility of the things themselves. If we look back, therefore, at our proof of the principle of causality, we shall notice that we could prove it only of objects of possible experience—everything that happens (every event) presupposes a cause—and indeed that we could prove it only as a principle of the possibility of experience, and hence of the *cognition* of an object given in *empirical intuition*, and not from mere concepts. It cannot be denied, however, that the proposition that everything contingent must have a cause is clearly evident to everyone from mere concepts. But then the concept of the contingent is already so understood that it contains not the category of modality (as something whose nonexistence *can be thought*), but that of relation (as something that can exist only as the consequence of something else). And then it is, of course, an identical proposition: what can exist only as a consequence has its cause. In fact, when we are to give examples of contingent existence, we always appeal to *changes*, and not merely to the possibility of *thinking the opposite*.[12] But change [200] is an event which, as such, is possible only through a cause, and whose

12 KANT'S NOTE. We can easily think the nonexistence of matter, but the ancients did not infer its contingency from this. But even the alternation of the being and nonbeing of a given state of a thing, in which all change consists, does not at all prove the contingency of this state, as it were, from the actuality of its opposite. For example, the rest of a body that follows upon its motion does not yet prove the contingency of its motion on the ground that the former is the opposite of the latter. For this opposite is here only logically, not really, *opposed* to the other. To prove the contingency of its motion, one would have to prove that *instead of* the motion at the preceding point in time, it would have been possible for the body to be at rest then—not that it is at rest *afterward*; for in that case the two opposites can very well coexist.

nonexistence is therefore possible in itself. So we cognize contingency from the fact that something can exist only as the effect of a cause. If a thing is therefore assumed to be contingent, it is an analytic proposition to say that it has a cause.

Still more remarkable, however, is that in order to understand the possibility of things in accordance with the categories, and so to establish the *objective reality* of the latter, we need not merely intuitions but always *outer intuitions*. If, for example, we take the pure concepts of *relation*, we find that (1) in order to give something *persistent* in intuition corresponding to the concept of *substance* (and thereby to establish the objective reality of this concept), we need an intuition *in space* (of matter), because space alone is determined as persistent, whereas time, and hence everything that is in inner sense, constantly flows. (2) *In order to present change* as the intuition corresponding to the concept of *causality*, we must take motion, as change in space, as our example; indeed, only through it can we make intuitive to ourselves changes whose possibility no pure understanding can comprehend. Change is the combination of contradictorily opposed determinations in the existence of one and the same thing. Now how it is possible that from a given state of a thing a state of the same thing opposed to it should follow—this no reason can make comprehensible to itself without examples; indeed, it cannot even make it intelligible without intuition. This intuition is that of the motion of a point in space, whose existence in different places (as a sequence of opposed determinations) alone first makes change intuitive to us. For afterward, in order to make even inner changes thinkable to ourselves, we must represent time, as the form of inner sense, figuratively by a line, and inner change by the drawing of this line (motion), and so make the successive [201] existence of ourselves in different states comprehensible to ourselves through outer intuition. The real ground of this is that all change presupposes something persistent in intuition in order even to be perceived as change, whereas in inner sense no persistent intuition whatever is to be found. —Finally, the category of *community*, as regards its pos-

sibility, cannot be comprehended at all by mere reason; and so the objective reality of this concept cannot be seen without intuition, and indeed outer intuition in space. For how would we think the possibility that, when several substances exist, something (as an effect) could follow reciprocally from the existence of one upon the existence of the others—and hence that, because there is something in the first, there must therefore also be something in the others that cannot be understood from the existence of these others alone? For this is what community requires; but it is not comprehensible at all among things each of which is completely isolated by its subsistence. Hence *Leibniz*, in attributing a community to the substances of the world only as the understanding alone thinks them, needed a deity to mediate it; for it rightly seemed to him incomprehensible from their existence alone. But we can very well make the possibility of community (of substances as appearances) comprehensible to ourselves if we represent them in space, and thus in outer intuition. For space already contains within itself *a priori* formal outer relations as conditions of the possibility of real relations (in action and reaction, and hence of community).[13] — In the same way it can easily be shown that the possibility of things as *magnitudes*, and thus the objective reality of the category of magnitude, can also be displayed only in outer intuition, and can afterward be applied to inner sense as well only by means of outer intuition. But to avoid prolixity I must leave the examples of this to the reader's own reflection.

This whole remark is of great importance, not only to confirm our preceding refutation of idealism, but even more, when we come to speak of *self-cognition* from mere inner consciousness and the determination of our nature without the aid of outer empirical intuitions, to show us the limits of the possibility of such a cognition.

The final conclusion of this whole section, therefore, is this: all fundamental principles of pure understanding are nothing

13 Leibniz held that substances do not act on one another; God coordinates their states in a "pre-established harmony."

more than principles *a priori* [202] of the possibility of experience; and to experience alone all synthetic propositions *a priori* are related—indeed, their possibility itself rests entirely on this relation.

Phenomena and noumena; the amphiboly of reflection

The limits of the understanding: we can know appearances, never things in themselves.

We have now not only traveled through the land of pure understanding and carefully inspected each part of it; we have also surveyed it and assigned each thing in it its place. But this land is an island, enclosed by nature itself within unalterable boundaries. It is the land of truth (an enticing name), surrounded by a wide and stormy ocean, the true seat of illusion. There many a fog bank and many a fast-melting iceberg feign new lands, and, by ceaselessly deceiving the seafarer who roams about in search of discoveries with empty hopes, entangle him in adventures that he can never give up and yet can never bring to an end. Before we venture out onto this sea, however, to search it in all its latitudes and make sure whether there is anything to hope for in them, it will be useful first to cast another glance at the map of the land we are about to leave. We should ask, first, whether we might not be content with what it contains—or even must be content with it out of necessity, if there is no other ground anywhere on which we could settle. Second, we should ask by what title we possess even this land, and can hold ourselves secure against all hostile claims. Although we have already answered these questions sufficiently in the course of the Analytic, [203] a summary review of their solutions can still strengthen our conviction, by uniting their several moments in one point.

We have seen, namely, that everything the understanding draws from itself, without borrowing it from experience, it nevertheless has for no other purpose than solely for use in experience. The principles of pure understanding—whether they are constitutive *a priori* (like the mathematical ones) or merely regulative (like the dynamical ones)—contain nothing but, as it were, the pure schema for possible experience. For experience has its unity only from the synthetic unity that the understanding originally and of itself confers on the synthesis of the imagination in relation to apperception; and appearances, as *data* for a possible cognition, must already stand *a priori* in relation to this unity and in agreement with it.[1] These rules of the understanding are not only true *a priori* but are even the source of all truth, that is, of the agreement of our cognition with objects, because they contain within themselves the ground of the possibility of experience, as the sum total of all cognition in which objects can be given to us. And yet it seems not enough to us to have laid before us merely what is true; we want to hear what we desire to know. If, then, we learn nothing more from this critical investigation than what we would in any case have practiced of our own accord in the merely empirical use of the understanding, even without such subtle inquiry, then it seems that the advantage to be drawn from it is not worth the expense and the preparation. One could, to be sure, reply that no curiosity is more harmful to the extension of our cognition than the kind that always wants to know the use of something in advance, before one engages in the inquiry, and before one could form even the least concept of this use, even if it were placed before one's eyes. But there is one advantage that can be made intelligible, and at the same time important, even to the most difficult and reluctant student of such transcendental inquiry. It is this: the understanding that is occupied merely with its empirical use, and does not reflect on the sources of its own cognition, may get along very well, but there is one thing it cannot do at all. It cannot determine for itself the boundaries of its own use, and know what may lie

1 *Data* (Latin): things given.

within or outside its whole sphere. For that, precisely the deep
[204] investigations we have undertaken are required. But if it cannot distinguish whether certain questions lie within its horizon or not, then it is never sure of its claims and its possessions. It can only count on many humiliating corrections whenever it ceaselessly oversteps the boundaries of its territory (as is unavoidable) and strays into delusion and deceptions.

That the understanding, then, can make only an empirical use of all its principles *a priori*—indeed of all its concepts—and never a transcendental use, is a proposition that, if it can be cognized with conviction, points ahead to important consequences. The transcendental use of a concept in any principle is its being referred to things *in general* and *in themselves*; its empirical use is its being referred merely to *appearances*, that is, to objects of a possible *experience*. That only the latter can take place at all can be seen from the following. For every concept we require, first, the logical form of a concept (of thinking) in general, and second, also the possibility of giving it an object to which it may refer. Without this object it has no sense and is entirely empty of content, even though it may still contain the logical function of making a concept out of whatever *data* there may be. Now, an object cannot be given to a concept in any other way than in intuition. And even if a pure intuition is possible *a priori*, prior to the object, this intuition itself can acquire its object, and hence objective validity, only through the empirical intuition of which it is the mere form. All concepts, therefore, and with them all principles, however much they may be possible *a priori*, nevertheless refer to empirical intuitions, that is, to *data* for possible experience. Without this they have no objective validity at all, but are a mere play—whether of the imagination or of the understanding—with their respective representations. Take, for example, just the concepts of mathematics, and first in their pure intuitions. Space has three dimensions; between two points there can be only one straight line; and so on. Although all these principles, and the representation of the object with which that science is occupied, are produced in the mind com-

pletely *a priori*, they would still mean nothing at all if we could not always display their meaning in appearances (empirical objects). That is why one requires that an abstract concept be [205] *made sensible*, that is, that the object corresponding to it be displayed in intuition; for without this the concept would remain (as one says) without *sense*, that is, without meaning. Mathematics fulfills this requirement by constructing the figure, which is an appearance present to the senses (though brought about *a priori*). In the same science, the concept of magnitude seeks its support and sense in number, and number seeks them in the fingers, in the beads of the abacus, or in the strokes and points that are placed before our eyes. The concept, together with the synthetic principles or formulas drawn from such concepts, is always produced *a priori*. But their use, and their reference to supposed objects, can in the end be sought nowhere but in experience, whose possibility (as to its form) they contain *a priori*.

That this is also the case with all the categories, and with the principles spun out of them, is clear from the following as well. We cannot give a real definition of even a single one of them—that is, make the possibility of its object intelligible—without at once descending to conditions of sensibility, and hence to the form of appearances. To these, as their only objects, the categories must consequently be restricted. For if one takes this condition away, all meaning, that is, all reference to the object, falls away, and one cannot make intelligible to oneself by any example what sort of thing is really meant by such concepts.[2]

No one can explain the concept of magnitude in general except perhaps like this: that it is the determination of a thing through which we can think how many times one is posited in it. But this "how many times" rests on successive repetition, and hence on time and on the synthesis (of the homogeneous) in time. Reality, in contrast to negation, can be explained only if one thinks of a time (as the sum total of all being) that is either

2 A real definition (as opposed to a nominal one) shows not merely what a word means but how its object is possible.

filled with something or empty. [206] If I leave out persistence (which is existence at all times), then nothing remains for my concept of substance except the logical representation of a subject. I suppose I can give this representation reality by representing to myself something that can occur only as subject (without being a predicate of anything). But not only do I know no conditions at all under which this logical prerogative would belong to any thing; nothing further can be made of it, and not the least inference can be drawn from it. For no object of the use of this concept is thereby determined, and so one does not know whether it means anything at all. In the concept of cause (if I leave out the time in which something follows something else according to a rule), I would find nothing more in the pure category than that it is something from which one can infer the existence of something else. Then not only could cause and effect not be distinguished from each other at all; but since this ability to infer soon requires conditions of which I know nothing, the concept would have no determination at all as to how it fits any object. The supposed principle "everything contingent has a cause" does step forward rather solemnly, as if it had its own dignity within itself. But I ask: what do you understand by "contingent"? And if you answer, "that whose non-existence is possible," then I would very much like to know how you mean to cognize this possibility of non-existence, unless you represent to yourselves, in the series of appearances, a succession, and in it an existence that follows upon non-existence (or the reverse), and hence a change. For to say that the non-existence of a thing does not contradict itself is a lame appeal to a logical condition which, though necessary for the concept, is far from sufficient for real possibility. Thus I can abolish any existing substance in thought without contradicting myself; but from this I can by no means infer its objective contingency in its existence, that is, the possibility of its non-existence in itself. As for the concept of community, it is easy to see that since the pure categories of substance and of causality admit of no explanation that determines the object, reciprocal causality in the relation of substances

to one another (*commercium*) is just as little capable of one. No one has yet been able to explain possibility, existence, and necessity except by obvious tautology, whenever one has wanted to draw their definition solely from the pure [207] understanding. For the deception of substituting the logical possibility of the *concept* (that it does not contradict itself) for the transcendental possibility of *things* (that an object corresponds to the concept) can deceive and satisfy only the inexperienced.[34]

From this it follows irrefutably that the pure concepts of the understanding can never be of *transcendental* use, but *always* only of *empirical* use; and that the principles of pure understanding can be referred to objects of the senses only in relation to the universal conditions of a possible experience, but never to things in general (without regard to the way in which we may intuit them).

The Transcendental Analytic accordingly has this important result: that the understanding *a priori* can never do more than anticipate the form of a possible experience in general; and, since what is not appearance cannot be an object of experience, that it can never overstep the limits of sensibility, within which alone objects are given to us. Its principles are merely principles for the exposition of appearances. The proud name of an ontology, which presumes to offer synthetic cognitions *a priori* of things in general in a systematic doctrine (for example, the principle of causality), must give way to the modest name of a mere analytic of pure understanding.

Thinking is the act of referring given intuition to an object. If the kind of this intuition is not given in any way, then the object is merely transcendental, and the concept of the understanding has no other than a transcendental use, namely the unity of thinking a manifold in general. Through a pure category, then,

3 KANT'S NOTE. In a word, none of these concepts can be supported by anything, and their *real* possibility thereby demonstrated, if all sensible intuition (the only kind we have) is taken away. What then remains is only *logical* possibility, that is, that the concept (the thought) is possible. But that is not the issue; the issue is whether it refers to an object and so means anything.

4 *Commercium* (Latin): mutual interchange, reciprocal influence.

in which abstraction is made from every condition of sensible intuition, [208] as the only intuition possible for us, no object is determined. Only the thinking of an object in general is expressed, according to different *modi*. Now, the use of a concept further requires a function of the power of judgment by which an object is subsumed under it, and hence at least the formal condition under which something can be given in intuition.[5] If this condition of the power of judgment (the schema) is lacking, all subsumption falls away, for nothing is given that could be subsumed under the concept. The merely transcendental use of the categories is therefore in fact no use at all, and has no determinate object, nor even one determinable as to its form. From this it follows that the pure category is not sufficient for any synthetic principle *a priori* either; that the principles of pure understanding are only of empirical, never of transcendental use; and that beyond the field of possible experience there can be no synthetic principles *a priori* at all.

It may therefore be advisable to express oneself thus: the pure categories, without the formal conditions of sensibility, have merely transcendental meaning, but are of no transcendental use. For such use is impossible in itself, since they lack all conditions of any use (in judgments), namely the formal conditions for subsuming any supposed object under these concepts. Since, then (as merely pure categories), they are not supposed to be of empirical use and cannot be of transcendental use, they are of no use at all when separated from all sensibility; that is, they cannot be applied to any supposed object at all. Rather, they are merely the pure form of the use of the understanding in regard to objects in general and to thinking, yet without our being able to think or determine any object through them alone.

Here, however, there lies at the bottom an illusion that is hard to avoid. In their origin the categories are not grounded on sensibility, as are the *forms of intuition*, space and time; they therefore seem to permit an application extended beyond all objects of the senses. [209] But they in turn are nothing but *forms of*

5 *Modi* (Latin): modes, ways.

thought, which contain merely the logical capacity to unite *a priori* in one consciousness the manifold given in intuition. So if one takes away from them the only intuition possible for us, they can have even less meaning than those pure sensible forms. Through those forms at least an object is given; whereas a way of combining the manifold that is peculiar to our understanding means nothing at all if the intuition in which alone the manifold can be given is not added to it.

PHENOMENA AND NOUMENA

Objects as they appear to the senses are set against objects thought by the understanding alone.

—Nevertheless, when we call certain objects, as appearances, beings of sense (*phaenomena*), distinguishing the way we intuit them from their constitution in itself, it already lies in this concept of ours that we set over against them, as it were, other objects, thought merely through the understanding, and call these beings of understanding (*noumena*). These may be either the very same objects considered according to their constitution in itself, even though we do not intuit them in it, or else other possible things that are not objects of our senses at all. Now the question arises whether our pure concepts of the understanding do not have meaning with regard to the latter, and could be a way of cognizing them.[6]

Right at the start, however, an ambiguity shows itself here that can occasion great misunderstanding. When the understanding calls an object in one relation a mere phenomenon, it at the same time forms for itself, outside this relation, a representation of an *object in itself*. It therefore imagines that it can also form *concepts* of such an object; and since the understanding supplies no concepts other than the categories, it imagines that the object in this latter sense must at least be capable of being thought through these pure concepts of the understanding. It is

6 *Phaenomena* and *noumena*: Greek for "things that appear" and "things that are thought."

thereby misled into taking the wholly *indeterminate* concept of a being of understanding, as a something in general outside our sensibility, for a *determinate* concept of a being that we could cognize in some way through the understanding.

If by a noumenon we understand a thing *insofar as it is not an object of our sensible intuition*, abstracting from our way of intuiting it, then this is a noumenon in the *negative* sense. But if we understand by it an *object of a non-sensible intuition*, then we assume a special kind of intuition, namely intellectual intuition. This, however, is not ours, and [210] we cannot even see its possibility. That would be the noumenon in the *positive* sense.

The doctrine of sensibility is at the same time the doctrine of noumena in the negative sense. That is, it concerns things that the understanding must think without this reference to our kind of intuition, and hence not merely as appearances but as things in themselves. In this abstraction, however, the understanding at the same time comprehends that it can make no use of its categories in considering them in this way. For the categories have meaning only in relation to the unity of intuitions in space and time; and they can determine this very unity through universal *a priori* concepts of combination only because of the mere ideality of space and time. Where this unity of time cannot be found, and hence in the case of the noumenon, the whole use of the categories—indeed even all their meaning—ceases completely. For even the possibility of the things that are supposed to correspond to the categories cannot be seen at all. Here I need only refer to what I set out at the very beginning of the General Remark to the preceding chapter. Now, the possibility of a thing can never be proved merely from the fact that a concept of it does not contradict itself, but only by supporting this concept with an intuition corresponding to it. If, then, we wanted to apply the categories to objects that are not regarded as appearances, we would have to lay at the foundation an intuition other than the sensible one, and then the object would be a noumenon in the *positive sense*. But since such an intuition, namely intellectual intuition, lies absolutely outside our faculty of cognition,

the use of the categories can by no means extend beyond the boundary of the objects of experience. To the beings of sense there do indeed correspond beings of understanding, and there may also be beings of understanding to which our sensible faculty of intuition has no relation at all; but our concepts of the understanding, as mere forms of thought for our sensible intuition, do not reach out to them in the least. What we call a noumenon must therefore be understood as such only in the *negative* sense.

If I take away all thinking (through categories) from an empirical cognition, [211] no cognition of any object whatever remains. For through mere intuition nothing at all is thought; and the fact that this affection of sensibility is in me does not amount to any reference of such a representation to any object. If, on the other hand, I leave out all intuition, there still remains the form of thinking, that is, the way of determining an object for the manifold of a possible intuition. To that extent the categories reach further than sensible intuition, since they think objects in general without yet regarding the particular way (of sensibility) in which these may be given. But they do not thereby determine a larger sphere of objects. For one cannot assume that such objects can be given without presupposing that a kind of intuition other than the sensible is possible—and to this we are by no means entitled.

THE NOUMENON AS A BOUNDARY CONCEPT

The concept of a noumenon is admissible only problematically, to limit the claims of sensibility.

I call a concept problematic if it contains no contradiction, and if, as a limitation of given concepts, it is also connected with other cognitions, but its objective reality cannot be cognized in any way. The concept of a *noumenon*—that is, of a thing that is to be thought not as an object of the senses at all, but as a thing in itself (solely through a pure understanding)—is not in the least contradictory. For one cannot, after all, assert of sensibility that

it is the only possible kind of intuition. Further, this concept is necessary in order not to extend sensible intuition to things in themselves, and thus to limit the objective validity of sensible cognition. (For the remaining things, to which sensible intuition does not reach, are called noumena precisely in order to indicate that those cognitions cannot extend their domain over everything the understanding thinks.) In the end, however, the possibility of such *noumena* cannot be seen at all, and the range outside the sphere of appearances is (for us) empty. That is, we have an understanding that extends *problematically* further than that sphere, but no intuition—indeed not even the concept of a possible intuition—through which objects could be given to us outside the field of sensibility, and through which the understanding could be used *assertorically* beyond it. The concept of a noumenon is therefore merely a *boundary concept*, meant to limit the presumption of sensibility, and hence only of negative use. Yet it is not arbitrarily invented. It is connected with the limitation of [212] sensibility, though without being able to posit anything positive outside the range of sensibility.

The division of objects into phenomena and noumena, and of the world into a sensible world and a world of understanding, can therefore not be admitted at all in the positive sense—although concepts certainly do admit of division into sensible and intellectual ones. For no object can be determined for the latter, and so they cannot be passed off as objectively valid either. If one departs from the senses, how will one make it intelligible that our categories (which would be the only concepts left over for noumena) still mean anything at all? For their reference to any object requires that something more than the mere unity of thinking be given, namely a possible intuition in addition, to which they can be applied. Nonetheless, the concept of a *noumenon*, taken merely problematically, remains not only admissible but, as a concept that sets limits to sensibility, unavoidable. But then it is not a special *intelligible object* for our understanding. Rather, an understanding to which such an object would belong is itself a problem: namely, an understand-

ing that would cognize its object not discursively, through categories, but intuitively, in a non-sensible intuition—and of the possibility of such an understanding we cannot form the least representation. In this way our understanding acquires a negative extension. That is, it is not limited by sensibility; rather, it limits sensibility, by calling things in themselves (not regarded as appearances) noumena. But it at once also sets boundaries for itself: it cannot cognize these things through any categories, and so can think them only under the name of an unknown something.

In the writings of the moderns, however, I find an entirely different use of the expressions *mundus sensibilis* and *intelligibilis*,[7] which [213] departs entirely from the sense the ancients gave them. With this use there is admittedly no difficulty, but nothing is to be found in it but empty word-mongering. In this sense some have been pleased to call the sum total of appearances, insofar as it is intuited, the sensible world, but insofar as its connection is thought according to universal laws of the understanding, the world of understanding. Theoretical astronomy, which sets forth the mere observation of the starry heavens, would represent the former; contemplative astronomy, on the other hand (explained, say, according to the Copernican system of the world, or even according to Newton's laws of gravitation), would represent the latter, namely an intelligible world.[8] But such a twisting of words is a mere sophistical evasion, a way of avoiding a troublesome question by toning down its sense to suit one's own convenience. With respect to appearances, understanding and reason can certainly be used. But the question is whether they still have any use when the object is not appearance (a noumenon); and the object is taken in this sense when it

7 KANT'S NOTE. One must not use in place of this expression that of an "intellectual" world, as is commonly done in German exposition. For only cognitions are intellectual or sensitive. What can only be an object of the one or the other kind of intuition—the objects, therefore—must be called intelligible or sensible (despite the harshness of the sound).

8 *Mundus sensibilis* and *intelligibilis* (Latin): the sensible world and the intelligible world, the terms of Kant's own 1770 Inaugural Dissertation.

is thought as in itself merely intelligible, that is, as given to the understanding alone and not to the senses at all. So the question is whether, besides that empirical use of the understanding (even in the Newtonian representation of the structure of the universe), a transcendental use is also possible, one that would be directed to the noumenon as an object. This question we have answered in the negative.

So when we say that the senses represent objects to us *as they appear*, but the understanding *as they are*, the latter is to be taken not in the transcendental but merely in the empirical sense. That is, it means how the objects must be represented as objects of experience, in the thoroughgoing connection of appearances, and not what they may be apart from their relation to possible experience, and consequently to the senses in general—and hence as objects of pure understanding. For this will always remain unknown to us—so much so that it even remains unknown whether such a transcendental (extraordinary) cognition is possible at all, at least as one that stands under our ordinary categories. In us, *understanding* and *sensibility* can determine objects *only in combination*. If we separate them, we have intuitions without concepts, or concepts without intuitions; but in both cases we have representations that we cannot refer to any determinate object.

If, after all these discussions, anyone still hesitates to renounce the [214] merely transcendental use of the categories, let him try them out in some synthetic assertion. For an analytic assertion takes the understanding no further. Since it is occupied only with what is already thought in the concept, it leaves undecided whether the concept in itself refers to objects, or merely signifies the unity of thinking in general (which abstracts entirely from the way in which an object may be given). It is enough for the understanding to know what lies in its concept; what the concept itself may refer to is a matter of indifference to it. Let him try it, then, with some synthetic and supposedly transcendental principle, such as: everything that exists exists as substance or as a determination inhering in a

substance; everything contingent exists as the effect of another thing, namely its cause; and so on. Now I ask: where will he get these synthetic propositions from, since the concepts are supposed to hold not relative to possible experience but of things in themselves (noumena)? Where is the third thing here, which is always required for a synthetic proposition in order to connect in it concepts that have no logical (analytic) kinship with each other? He will never prove his proposition. What is more, he will not even be able to justify the possibility of such a pure assertion without taking the empirical use of the understanding into account—and thereby renouncing completely the pure judgment, free of the senses. So the concept of pure, merely intelligible objects is entirely empty of any principles for their application, because one cannot devise any way in which they could be given. The problematic thought, which nevertheless leaves a place open for them, serves only like an empty space, to limit the empirical principles, without itself containing or exhibiting any other object of cognition outside the sphere of those principles.

APPENDIX: THE AMPHIBOLY OF THE CONCEPTS OF REFLECTION

Confusing the empirical with the transcendental use of the understanding produces false principles.

Reflection (*reflexio*) does not deal with objects themselves, in order to obtain concepts directly from them. It is rather the state [215] of mind in which we first prepare ourselves to discover the subjective conditions under which we can arrive at concepts. It is the consciousness of the relation of given representations to our different sources of cognition, and only through it can their relation to one another be correctly determined. The first question, before any further treatment of our representations, is this: in which faculty of cognition do they belong together? Is it the understanding, or is it the senses, before which they are connec-

ted or compared?[9] Many a judgment is accepted out of habit, or tied together by inclination. But because no reflection precedes it, or at least follows it critically, it passes for one that has its origin in the understanding. Not all judgments need an *examination*, that is, attention to the grounds of their truth. For if they are immediately certain—for example, "between two points there can be only one straight line"—then no mark of their truth can be pointed out that is nearer than what they themselves express. But all judgments, indeed all comparisons, need a *reflection*, that is, a distinguishing of the cognitive power to which the given concepts belong. The act by which I hold the comparison of representations in general up against the cognitive power in which it is carried out, and by which I distinguish whether they are compared with one another as belonging to pure understanding or to sensible intuition, I call *transcendental reflection*. The relation, however, in which concepts can belong to one another in a state of mind is that of *identity* and *difference*, of *agreement* and *opposition*, of the *inner* and the *outer*, and finally of the *determinable* and the *determination* (matter and form). The correct determination of this relation depends on the cognitive power in which they *subjectively* belong to one another: whether in sensibility or in the understanding. For the difference between the latter makes a great difference in how one ought to think the former.

Before all objective judgments we compare concepts: to arrive at their *identity* (of many representations under one concept) for the sake of *universal* judgments, or at their *difference* for producing *particular* ones; at their *agreement*, from which affirmative judgments can arise, and [216] their *opposition*, from which negative ones can arise; and so on. For this reason, it seems, we ought to call the concepts just listed concepts of comparison (*conceptus comparationis*). But when what matters is not the logical form but the content of the concepts, that is,[10]

9 Kant's word is *Überlegung*, which he glosses with the Latin *reflexio*; both are rendered "reflection."

10 *Conceptus comparationis* (Latin): concepts of comparison.

whether the things themselves are identical or different, in agreement or in opposition, and so on, then things can have a twofold relation to our cognitive power, namely to sensibility and to the understanding; and the way they are to belong to one another depends on this place *in which* they belong. So only transcendental reflection, that is, the relation of given representations to one or the other kind of cognition, will be able to determine their relation to one another. Whether the things are identical or different, in agreement or in opposition, and so on, cannot be settled at once from the concepts themselves through mere comparison (*comparatio*). It can be settled only by first distinguishing the kind of cognition to which they belong, by means of a transcendental reflection (*reflexio*). One could therefore say that *logical reflection* is a mere comparison. For in it abstraction is made entirely from the cognitive power to which the given representations belong, and so, as far as their seat in the mind is concerned, they are to be treated as homogeneous. *Transcendental reflection*, however (which is directed to the objects themselves), contains the ground of the possibility of the objective comparison of representations with one another. It is therefore very different from logical reflection, since the cognitive power to which the representations belong is not the same one. This transcendental reflection is a duty from which no one can release himself if he wants to judge anything about things *a priori*. We shall now take it in hand, and we shall draw no small light from it for determining the understanding's proper business.

1. *Identity* and *difference.* If an object

is presented to us several times, but each time with the very same inner determinations (*qualitas et quantitas*), then, if it counts as an object of pure understanding, it is always the very same, and not many things but only one thing (*numerica identitas*). But if it is appearance, then the comparison of concepts does not matter at all. However much everything may be identical with regard to the concepts, the difference of the places of this appearance at the same time is still a sufficient

ground for the *numerical difference* of the object (of the senses) [217] itself. Thus with two drops of water one can abstract completely from all inner difference (of quality and quantity); it is enough that they are intuited at the same time in different places for them to be held numerically different.[11] Leibniz took appearances for things in themselves, and hence for *intelligibilia*, that is, objects of pure understanding (although, because their representations are confused, he gave them the name of phenomena). On that assumption his principle of *indiscernibles* (*principium identitatis indiscernibilium*) certainly could not be disputed. But since appearances are objects of sensibility, and the understanding is of no pure use with regard to them but only of empirical use, plurality and numerical difference are already given by space itself, as the condition of outer appearances.[12] For one part of space, even though it may be completely similar and equal to another, is still outside it, and precisely for that reason is a part different from the first, which is added to it to make up a larger space. The same must therefore hold of everything that exists at the same time in the various places of space, however similar and equal it may otherwise be.

2. *Agreement* and *opposition.* If reality is represented only through the

pure understanding (*realitas noumenon*), then no opposition can be thought between realities, that is, no relation such that, when combined in one subject, they cancel each other's consequences, as in 3 − 3 = 0. By contrast, what is real in appearance (*realitas phaenomenon*) can certainly be in opposition within itself; and when united in the same subject, one real can wholly or partly destroy the *consequence of the other*. Examples are two moving forces in the same straight line, insofar as they either

11 *Qualitas et quantitas* (Latin): quality and quantity. *Numerica identitas*: numerical identity.

12 *Principium identitatis indiscernibilium* (Latin): Leibniz's principle of the identity of indiscernibles, that no two things can be exactly alike.

pull or push a point in opposite directions, or again a pleasure that counterbalances a pain.[13]

3. *The inner* and *the outer.* In an object of the pure understanding, only that is inner which has no relation at all (as regards its existence) to anything different from it. By contrast, the inner determinations of a *substantia phaenomenon* in space are nothing but relations, and it is itself entirely a sum total of mere relations. We know substance in space only through forces that are active in it, either drawing others toward it (attraction) or keeping them from penetrating it (repulsion and impenetrability). We know no other properties that make up the concept [218] of the substance that appears in space and that we call matter. As an object of pure understanding, on the other hand, every substance must have inner determinations and powers that pertain to its inner reality.[14] But what inner accidents can I think of, except those that my inner sense offers me —namely, what is either itself a *thinking* or analogous to it? That is why Leibniz, because he represented all substances to himself as noumena, made them all—even the constituent parts of matter, after he had in thought taken away from them everything that might signify outer relation, and hence also *composition*—into simple subjects endowed with powers of representation: in a word, *monads*.[15]

4. *Matter* and *form.* These are two concepts that are laid at the basis of all other reflection, so inseparably are they bound up with every use of the understanding. The first signifies the determinable in general, the second its determination (both in the transcendental sense, where one abstracts from every difference in what is given and in the way it is determined). Logicians formerly called the universal the matter, and the specific difference the form. In every judgment one can call the given concepts the

13 *Realitas noumenon* / *realitas phaenomenon* (Latin): reality as noumenon / reality as phenomenon.

14 *Substantia phaenomenon* (Latin): substance as phenomenon.

15 Monads: in Leibniz's *Monadology* (1714), the simple, unextended substances of which everything is composed.

logical matter (for the judgment), and their relation (by means of the copula) the form of the judgment. In every being, its constituent elements (*essentialia*) are the matter, and the way they are connected in a thing is the essential form.[16] Likewise, with respect to things in general, unlimited reality was regarded as the matter of all possibility, and its limitation (negation) as the form by which one thing is distinguished from another according to transcendental concepts. For the understanding demands first that something be given (at least in the concept) in order to be able to determine it in a certain way. Hence in the concept of the pure understanding matter precedes form. For this reason Leibniz first assumed things (monads) and inwardly a power of representation belonging to them, so as afterward to ground on this their outer relation and the community of their states (namely, of their representations). Hence space and time were possible—space only through the relation of substances, time through the connection of their determinations with one another as grounds and consequences. And so indeed it would have to be, if the pure understanding could be related to objects immediately, and if space and [219] time were determinations of things in themselves. But if they are only sensible intuitions, in which we determine all objects merely as appearances, then the form of intuition (as a subjective constitution of sensibility) precedes all matter (the sensations). Space and time therefore precede all appearances and all *data* of experience, and in fact are what first make them possible. The intellectual philosopher could not bear that the form should precede the things themselves and determine their possibility—an entirely correct objection, if he assumed that we intuit things as they are (although with confused representation). But sensible intuition is an entirely peculiar subjective condition, which lies *a priori* at the basis of all perception and whose form is original. So the form is given by itself alone. And far from the matter (or the things themselves that appear) having to lie at the basis (as one would have to judge according to mere concepts), the possibility of the

16 *Essentialia* (Latin): essential components.

matter instead presupposes a formal intuition (time and space) as given.

REMARK ON THE AMPHIBOLY OF THE CONCEPTS OF REFLECTION

Leibniz's system is traced to comparing objects only through concepts, without a transcendental topic.

Allow me to call the place we assign to a concept, either in sensibility or in the pure understanding, its *transcendental place*. In this way, the appraisal of this place, which belongs to each concept according to the difference in its use, together with the directions for determining this place for all concepts according to rules, would be the *transcendental topic*. This would be a doctrine that would thoroughly guard against surreptions of the pure understanding and the deceptions arising from them, since it would always distinguish to which cognitive power the concepts properly belong. One can call every concept, every heading under which many cognitions belong, a *logical place*.[17] On this is based the *logical topic* of Aristotle, which schoolteachers and orators could use in order to look up, under certain headings of thought, what best suited the matter at hand, and then to reason sophistically about it with an illusion of thoroughness, or to chatter about it at length.[18]

220 The transcendental topic, on the other hand, contains no more than the four headings of all comparison and distinction cited above. They differ from categories in that what they present is not the object according to what makes up its concept (magnitude, reality), but only the comparison of representations, in all its manifoldness, that precedes the concept of things. But this comparison first requires a reflection, that is, a determination of the place where the representations of the

17 Surreption: gaining something by stealth; here, a concept's illegitimate slide from one cognitive faculty to another.

18 Aristotle's *Topics* catalogues such commonplaces for argument.

things being compared belong: whether they are thought by the pure understanding or given in appearance by sensibility.

Concepts can be compared logically without troubling about where their objects belong—whether to the understanding as noumena, or to sensibility as phenomena. But if we want to go to objects with these concepts, transcendental reflection is first needed to decide for which cognitive power they are to be objects, whether for the pure understanding or for sensibility. Without this reflection I make a very uncertain use of these concepts, and supposed synthetic principles arise which critical reason cannot acknowledge, and which are based solely on a transcendental amphiboly, that is, a confusion of an object of the pure understanding with appearance.[19]

Lacking such a transcendental topic, and so deceived by the amphiboly of the concepts of reflection, the famous Leibniz erected an *intellectual system of the world*—or rather, he believed he could cognize the inner constitution of things by comparing all objects only with the understanding and with the abstract formal concepts of its thinking. Our table of the concepts of reflection gives us the unexpected advantage of laying before our eyes what is distinctive in his doctrine in all its parts, and at the same time the guiding ground of this peculiar way of thinking, which rested on nothing but a misunderstanding. He compared all things with one another solely through concepts, and found, naturally enough, no differences other than those through which the understanding distinguishes its pure concepts from one another. The conditions of sensible intuition, which carry their own differences with them, he did not regard as original. For sensibility was for him only a confused kind of representation and not a distinct source of representations. Appearance was for him the representation of the *thing* [221] *in itself*, though distinguished from cognition through the understanding in its logical form: for, lacking its usual analysis, appearance draws into the concept of the thing a certain admixture of subsidiary representations, which the understanding

19 Amphiboly: ambiguity, a term that can be taken two ways.

knows how to separate from it. In a word, *Leibniz intellectualized* appearances, just as *Locke*, according to his system of *noogony* (if I may be permitted to use these expressions), had *sensualized* the concepts of the understanding one and all, that is, passed them off as nothing but empirical or abstracted concepts of reflection.[20] Instead of seeking in understanding and sensibility two entirely different sources of representations, which could judge objectively validly about things only *in combination*, each of these great men held to only one of the two. In his view this one related immediately to things in themselves, while the other did nothing but confuse or order its representations.

Leibniz therefore compared the objects of the senses with one another merely in the understanding, as things in general. *First*, insofar as they are to be judged by it as identical or different. He had before his eyes only their concepts, and not their position in intuition, in which alone objects can be given, and he entirely disregarded the transcendental place of these concepts (whether the object is to be counted among appearances or among things in themselves). So it could not turn out otherwise than that he extended his principle of indiscernibles, which holds only of concepts of things in general, to the objects of the senses as well (*mundus phaenomenon*), and believed he had thereby given the cognition of nature no small extension.[21] Certainly, if I know a drop of water as a thing in itself according to all its inner determinations, I cannot allow any one drop to count as different from another if the whole concept of the one is identical with that of the other. But if the drop is appearance in space, it has its place not merely in the understanding (among concepts) but in sensible outer intuition (in space). And there physical places are entirely indifferent with regard to the inner determinations of things: a place *b* can receive a thing that is completely similar and equal to another in place *a* just as well as if it were ever so different from it inwardly. Difference of places, without

20 *Noogony* (Kant's coinage from Greek): an account of the origin of the intellect's concepts.

21 *Mundus phaenomenon* (Latin): the world as phenomenon.

any further conditions, already by itself makes plurality and distinction of objects [222] as appearances not only possible but also necessary. So that apparent law is no law of nature. It is merely an analytic rule for comparing things through mere concepts.

Second, the principle that realities (as mere affirmations) never logically conflict with one another is an entirely true proposition about the relation of concepts. But it signifies nothing whatever, either with regard to nature or anywhere with regard to any thing in itself (of which we have no concept). For real conflict takes place everywhere that A − B = 0, that is, where one reality, combined with another in one subject, cancels the effect of the other. All hindrances and counteractions in nature constantly set this before our eyes; and since they rest on forces, they must nonetheless be called *realitates phaenomena*.[22] General mechanics can even state the empirical condition of this conflict in an *a priori* rule, by attending to the opposition of directions—a condition of which the transcendental concept of reality knows nothing at all. Although Herr von Leibniz did not exactly announce this proposition with the pomp of a new principle, he nonetheless made use of it for new assertions, and his successors expressly inserted it into their Leibnizian-Wolffian systems of doctrine. According to this principle, for example, all evils are nothing but consequences of the limits of creatures, that is, negations, because these are the only thing that conflicts with reality. (In the mere concept of a thing in general this really is so, but not in things as appearances.) Likewise, its adherents find it not only possible but natural to unite all reality in one being without any worrisome conflict. For they know no conflict other than that of contradiction (through which the concept of a thing is itself canceled), and not that of mutual impairment, where one real ground cancels the effect of another—and it is only in sensibility that we meet with the conditions for representing such a conflict to ourselves.

Third, Leibniz's monadology has no other ground at all than that this philosopher represented the distinction between inner

22 *Realitates phaenomena* (Latin): realities as phenomena.

and outer merely in relation to the understanding. Substances [223] in general must have something *inner*, which is therefore free of all outer relations, and consequently of composition too. The simple is therefore the foundation of what is inner in things in themselves. But what is inner in their state cannot consist in place, shape, contact or motion either (these determinations are all outer relations). And so we can ascribe to substances no inner state other than that by which we inwardly determine our sense itself, namely the *state of representations*. Thus the monads were complete: they were to make up the basic stuff of the entire universe, yet their active power consists only in representations, through which they are, strictly speaking, active only within themselves.

But precisely for this reason his principle of the possible *community of substances* with one another had to be a *pre-established harmony* and could not be a physical influence. For since everything is occupied only inwardly, that is, with its own representations, the state of the representations of one substance could stand in no effective connection whatever with that of another. Rather, some third cause, flowing into all of them together, had to make their states correspond to one another. It did so not, indeed, through assistance given occasionally and applied specially in each single case (*systema assistentiae*), but through the unity of the idea of a cause valid for all, from which they must all receive their existence and persistence, and hence also their mutual correspondence with one another according to universal laws.[23]

Fourth, his famous *doctrine* of *time* and *space*, in which he intellectualized these forms of sensibility, arose solely from this very same deception of transcendental reflection. If I want to represent to myself outer relations of things through the mere understanding, this can happen only by means of a concept of their mutual action; and if I am to connect one state of the very

23 *Systema assistentiae* (Latin): the system of assistance, i.e., occasionalism, associated with Nicolas Malebranche (1638–1715), on which God produces each correspondence case by case.

same thing with another state, this can happen only in the order of grounds and consequences. So Leibniz thought of space as a certain order in the community of substances, and of time as the dynamical sequence of their states. But what is peculiar to both and independent of things, which they seem to have in themselves, he ascribed to the *confusedness* of these concepts. It was this confusedness, he held, that made what is a mere form of dynamical relations [224] be taken for a distinct intuition, subsisting by itself and preceding the things themselves. So space and time were the intelligible form of the connection of things (substances and their states) in themselves. The things, however, were intelligible substances (*substantiae noumena*). Nevertheless he wanted to make these concepts hold for appearances, because he granted sensibility no kind of intuition of its own but sought all representation of objects, even empirical representation, in the understanding, and left the senses nothing but the contemptible business of confusing and distorting the representations of the understanding.[24]

But even if we could say something synthetically *about things in themselves* through the pure understanding (which is nevertheless impossible), this still could not be applied at all to appearances, which do not represent things in themselves. In this latter case, then, in transcendental reflection I will always have to compare my concepts only under the conditions of sensibility; and so space and time will be determinations not of things in themselves but of appearances. What things in themselves may be I do not know, nor do I need to know, since a thing can never come before me other than in appearance.

I proceed in the same way with the remaining concepts of reflection. Matter is *substantia phaenomenon*. What belongs to it inwardly I seek in all the parts of the space it occupies and in all the effects it exerts, and these can, of course, only ever be appearances of the outer senses. So I have nothing that is absolutely inner, but only what is comparatively inner, which itself in turn consists of outer relations. But the absolutely inner of

24 *Substantiae noumena* (Latin): substances as noumena.

matter, according to the pure understanding, is also a mere fancy; for matter is nowhere an object for the pure understanding. The transcendental object, however, which may be the ground of this appearance we call matter, is a mere something of which we would not even understand what it is, even if someone could tell us. For we can understand nothing except what brings with it something in intuition that corresponds to our words. Suppose the complaints *that we have no insight at all into the inner nature of things* are meant to say that we do not grasp through the pure understanding what the things that appear to us may be in themselves. Then they are entirely unfair and unreasonable. For they demand that we should be able to cognize things, and hence to intuit them, without [225] senses. That is, they demand that we have a cognitive faculty entirely different from the human one, not merely in degree but even in its intuition and kind; that we should be, then, not human beings but beings of which we cannot even say whether they are so much as possible, much less how they are constituted. Observation and analysis of appearances penetrate into the interior of nature, and there is no knowing how far this will go in time. But those transcendental questions that go beyond nature we could never answer even so, even if all of nature were laid open to us, since it is not even given to us to observe our own mind with any intuition other than that of our inner sense. For in that sense lies the secret of the origin of our sensibility. Its relation to an object, and what the transcendental ground of this unity may be, lie without doubt too deeply hidden for us—who know even ourselves only through inner sense, and hence as appearance—to be able to use so unsuitable an instrument of our inquiry to find anything other than, again and again, appearances, whose non-sensible cause we would nonetheless gladly investigate.

What makes this critique of the inferences drawn from the mere acts of reflection extremely useful is this: it clearly demonstrates the nullity of all inferences about objects that one compares with one another merely in the understanding. And at the same time it confirms what we have chiefly insisted on: that

although appearances are not included, as things in themselves, among the objects of the pure understanding, they are nonetheless the only things in which our cognition can have objective reality, namely where intuition corresponds to the concepts.

When we reflect merely logically, we only compare our concepts with one another in the understanding: whether both contain the very same thing, whether they contradict each other or not, whether something is contained within the concept or is added to it, and which of the two is given and which is to count only as a way of thinking the given one. But if I apply these concepts to an object in general (in the transcendental sense), without further determining whether it is an object of sensible or of intellectual intuition, then limitations [226] at once appear (not to go outside this concept) that pervert every empirical use of them. They thereby prove that the representation of an object as a thing in general is not merely *insufficient*, but, without sensible determination of it and independently of empirical conditions, *self-conflicting*. It follows that one must either abstract from every object (as in logic) or, if one assumes an object, think it under conditions of sensible intuition. Hence the intelligible would require an entirely special intuition that we do not have, and in its absence would be nothing *for us*; but on the other hand appearances cannot be objects in themselves either. For if I think merely of things in general, the difference of outer relations certainly cannot make up a difference of the things themselves; rather, it presupposes this difference. And if the concept of the one is not inwardly different at all from that of the other, then I am only placing one and the same thing in different relations. Further, by adding one mere affirmation (reality) to another, the positive is increased, and nothing is taken away from it or canceled. Hence what is real in things in general cannot conflict with one another; and so on.

As we have shown, the concepts of reflection, through a certain misinterpretation, have such an influence on the use of the understanding that they were even able to mislead one of the most acute of all philosophers into a supposed system of intel-

lectual cognition, which undertakes to determine its objects without the addition of the senses. For precisely this reason, laying out the deceptive cause of the amphiboly of these concepts, in giving rise to false principles, is of great use in reliably determining and securing the boundaries of the understanding.

It must indeed be said that what belongs to or contradicts a concept universally also belongs to or contradicts every particular contained under that concept (*dictum de omni et nullo*). But it would be absurd to alter this logical principle so that it read: what is not contained in a universal concept is also not contained in the particular concepts that stand under it. For [227] these are particular concepts precisely because they contain more within them than is thought in the universal one. Yet the whole intellectual system of Leibniz is actually built on this latter principle; it therefore falls together with it, along with all the ambiguity in the use of the understanding that springs from it.[25]

The principle of indiscernibles was really based on the presupposition that if a certain distinction is not met with in the concept of a thing in general, then it is not to be met with in the things themselves either; consequently, all things are completely identical (*numero eadem*) that are not already distinguished from one another in their concept (in quality or quantity). But because in the mere concept of any thing one has abstracted from many necessary conditions of an intuition, a strange overhastiness takes what has been abstracted from as something not to be met with anywhere, and concedes nothing to the thing except what is contained in its concept.[26]

The concept of a cubic foot of space, wherever and however often I may think it, is in itself completely identical. Yet two cubic feet are nonetheless distinguished in space merely by their places (*numero diversa*). These places are conditions of the intuition in which the object of this concept is given; they do not belong to the concept, but they do belong to sensibility as a

25 *Dictum de omni et nullo* (Latin): the rule "of all and of none," the traditional foundation of syllogistic logic.
26 *Numero eadem* (Latin): numerically the same.

whole. In the same way, there is no conflict at all in the concept of a thing if nothing negative has been combined with something affirmative; and merely affirmative concepts, combined, can produce no cancellation at all. But in sensible intuition, in which reality (for example,[27] motion) is given, there are conditions (opposed directions) that had been abstracted from in the concept of motion in general. These make possible a conflict—one that is admittedly not logical—namely, a zero = 0 from what is entirely positive. And one could not say that all reality is in agreement with itself merely because no conflict is met with among its concepts.[28] 228 According to mere concepts, the inner is the substratum of all relations or outer determinations. So if I abstract from all conditions of intuition and keep solely to the concept of a thing in general, I can abstract from all outer relation, and yet a concept must still remain of that which signifies no relation at all, but merely inner determinations. Now it seems to follow from this that in every thing (substance) there is something that is absolutely inner and precedes all outer determinations, since it is what first makes them possible. Hence this substratum is something that no longer contains any outer relations within it, and is consequently *simple* (for corporeal things are always only relations, at least of their parts outside one another). And since we know no absolutely inner determinations except those through our inner sense, this substratum would be not only simple but also (by analogy with our inner sense) determined through *representations*. That is, all things would really be *monads*, or simple beings endowed with representations. And all this would be perfectly correct, if some-

27 *Numero diversa* (Latin): numerically different.

28 KANT'S NOTE. Suppose one wanted to resort here to the usual evasion, that at least *realitates noumena* cannot act against one another. Then one would still have to cite an example of such pure and sense-free reality, so that it could be understood whether such a thing represents something or nothing at all. But no example can be taken from anywhere but experience, which never offers more than phenomena. And so this proposition means nothing more than that a concept containing only affirmations contains nothing negative—a proposition we have never doubted.

TRANSLATOR'S NOTE. *Realitates noumena* (Latin): realities as noumena.

thing more than the concept of a thing in general did not belong to the conditions under which alone objects of outer intuition can be given to us—conditions from which the pure concept abstracts. For there it turns out that a persistent appearance in space (impenetrable extension) can contain nothing but relations and nothing at all that is absolutely inner, and yet be the first substratum of all outer perception. Through mere concepts I certainly cannot think anything outer without something inner, precisely because concepts of relation presuppose things that are absolutely given, and are not possible without them. But intuition contains something that does not lie at all in the mere concept of a thing in general, and this something furnishes the substratum that would never be cognized through mere concepts: namely, a space that, together with all it contains, consists of purely formal, or also real, relations. So I cannot say: because no thing can be represented *through mere concepts* without something absolutely inner, there is also nothing outer in the things themselves that are contained under these concepts, and in *their* [229] *intuition*, which does not have something absolutely inner at its basis. For once we have abstracted from all conditions of intuition, nothing is left to us in the mere concept, of course, but the inner in general and its relations among themselves, through which alone the outer is possible. But this necessity, which is based solely on abstraction, does not hold for things insofar as they are given in intuition with determinations that express mere relations without having anything inner at their basis—because they are not things in themselves but merely appearances. Whatever we know of matter is nothing but relations (what we call its inner determinations is only comparatively inner). But among these relations are some that are self-subsistent and persistent, through which a determinate object is given to us. That I have nothing further to think if I abstract from these relations does not cancel the concept of a thing as appearance, nor the concept of an object *in abstracto*. It does, however, cancel all possibility of an object determinable according to mere concepts, that is, of a noumenon. It is certainly start-

ling to hear that a thing is supposed to consist entirely of relations. But such a thing is also mere appearance and cannot be thought at all through pure categories; it itself consists in the mere relation of something in general to the senses.[29] In the same way, if one begins with mere concepts, one can hardly think the relations of things *in abstracto* in any other way than that one is the cause of determinations in the other; for that is our concept of the understanding of relations themselves. But since we then abstract from all intuition, a whole way in which the manifold can determine each other's places drops out, namely the form of sensibility (space), which nonetheless precedes all empirical causality.

MERELY INTELLIGIBLE OBJECTS

Noumena can be admitted only in a negative sense, as a problem rather than an object.

If by merely intelligible objects we understand those things that are thought through pure categories without any schema of sensibility, then such things are impossible. For the condition of the objective use of all our concepts of the understanding is merely the kind of our sensible intuition, through which objects are given to us; and if we abstract from the latter, the former have no relation at all to any object. Indeed, even if one wanted to assume a kind of intuition other than this sensible one of ours, [230] our functions of thinking would still be of no significance at all with regard to it. If we understand by them only objects of a non-sensible intuition, of which our categories admittedly do not hold, and of which we can therefore never have any cognition at all (neither intuition nor concept), then noumena in this merely negative sense must certainly be admitted. For they then say nothing but this: that our kind of intuition does not extend to all things but only to objects of our senses; that its objective validity is consequently bounded; and that room is therefore left over for some other kind of intuition, and

29 *In abstracto* (Latin): in the abstract.

so also for things as its objects. But then the concept of a noumenon is problematic, that is, the representation of a thing of which we can say neither that it is possible nor that it is impossible, since we know no kind of intuition but our sensible one, and no kind of concepts but the categories, and neither of these is suited to an object beyond the senses. We therefore cannot yet positively extend the field of the objects of our thinking beyond the conditions of our sensibility and assume, besides appearances, objects of pure thinking as well, that is, noumena, because these have no positive significance that could be specified. For it must be admitted of the categories that they alone are not yet sufficient for the cognition of things in themselves, and that without the *data* of sensibility they would be merely subjective forms of the unity of the understanding, but without an object. Thinking is indeed in itself no product of the senses, and to that extent it is not limited by them either. But it does not follow that it at once has a use of its own, a pure use, without the assistance of sensibility; for then it is without an *object*. Nor can one call the noumenon such an *object*; for the noumenon signifies precisely the problematic concept of an object for an entirely different intuition and an entirely different understanding from ours, and is therefore itself a problem. The concept of the noumenon is therefore not the concept of an object. It is the problem, unavoidably bound up with the limitation of our sensibility, of whether there might not be objects entirely detached from sensibility's kind of intuition. This question can be answered only indeterminately, namely: because sensible intuition does not extend to all things without distinction, room is left over for more and other objects. So these cannot be flatly denied; but in the absence of a determinate concept (since no category is [231] fit for this), they cannot be asserted as objects for our understanding either.

The understanding therefore bounds sensibility without thereby extending its own field. In warning sensibility not to presume to extend to things in themselves, but solely to appearances, it thinks for itself an object in itself—but only as a tran-

scendental object, which is the cause of appearance (and hence not itself appearance). This object can be thought neither as magnitude, nor as reality, nor as substance, etc. (because these concepts always require sensible forms in which they determine an object). Of it, then, it is entirely unknown whether it is to be met with in us or also outside us, and whether it would be canceled together with sensibility or would still remain if we took sensibility away. If we want to call this object a noumenon because the representation of it is not sensible, we are free to do so. But since we cannot apply any of our concepts of the understanding to it, this representation nonetheless remains empty for us. It serves only to mark the boundaries of our sensible cognition and to leave open a space that we can fill neither through possible experience nor through the pure understanding.

The critique of this pure understanding therefore does not permit it to create for itself a new field of objects beyond those that can come before it as appearances, and to wander off into intelligible worlds—not even into their concept. The error that most plausibly leads to this, and that can certainly be excused though not justified, lies here: the use of the understanding is made transcendental, contrary to its vocation, and objects, that is, possible intuitions, are made to conform to concepts, instead of concepts conforming to possible intuitions (on which alone their objective validity rests). The cause of this, in turn, is that apperception, and with it thinking, precedes every possible determinate ordering of representations. So we think something in general and on the one side determine it sensibly, yet we still distinguish the object, universal and represented *in abstracto*, from this way of intuiting it. What is then left to us is a way of determining it merely through thinking. This is indeed a mere logical form without content, yet it seems to us to be a way in which the object might exist in itself [232] (noumenon), without regard to intuition, which is limited to our senses.

THE CONCEPT OF NOTHING

A table divides the concept of nothing into four kinds, following the order of the categories.

Before we leave the transcendental analytic, we must add something which, though not of any special importance in itself, might nonetheless seem required for the completeness of the system. The highest concept with which a transcendental philosophy usually begins is commonly the division into the possible and the impossible. But since every division presupposes a concept that is divided, a still higher one must be specified. This is the concept of an object in general (taken problematically, leaving undecided whether it is something or nothing). Since the categories are the only concepts that relate to objects in general, the distinction of an object—whether it is something or nothing—will proceed according to the order and direction of the categories.

1) Opposed to the concepts of all, many, and one is the concept that cancels everything, that is, *none*. And so the object of a concept to which no intuition that could be specified corresponds at all is nothing. That is, it is a concept without an object, like the noumena, which cannot be counted among the possibilities, though they must not for that reason be declared impossible either (*ens rationis*); or like, say, certain new fundamental forces, which one thinks, without contradiction indeed, but also without an example from experience, and which therefore must not be counted among the possibilities.[30]

2) Reality is *something*; negation is *nothing*, namely a concept of the lack of an object, such as shadow or cold (*nihil privativum*).[31]

3) The mere form of intuition, without substance, is in itself no object, but the merely formal condition of an object (as appearance), like pure space and pure time. These are indeed

30 *Ens rationis* (Latin): a being of reason, a mere thought-entity.
31 *Nihil privativum* (Latin): privative nothing, nothing as absence.

something, as forms of intuiting, but are not themselves objects that are intuited (*ens imaginarium*).[32]

4) The object of a concept that contradicts itself is nothing, because the concept is nothing: the impossible, such as a rectilinear figure with two sides (*nihil negativum*).[33]

[233] The table of this division of the concept of *nothing* would therefore have to be laid out as follows (for the parallel division of something follows of itself):

Nothing, as

1. *Empty concept without object*, *ens rationis*.
2. *Empty object of a concept*, *nihil privativum*.
3. *Empty intuition without object*, *ens imaginarium*.
4. *Empty object without concept*, *nihil negativum*.

One sees that the thought-entity (no. 1) is distinguished from the non-entity (no. 4) in that the former may not be counted among the possibilities because it is mere invention (though not contradictory), whereas the latter is opposed to possibility, since its concept even cancels itself. Both, however, are empty concepts. By contrast, the *nihil privativum* (no. 2) and the *ens imaginarium* (no. 3) are empty *data* for concepts. If light had not been given to the senses, one could not represent darkness either; and if extended beings had not been perceived, one could not represent space. Negation, as well as the mere form of intuition, are no objects without something real.

32 *Ens imaginarium* (Latin): an imaginary being.
33 *Nihil negativum* (Latin): negative nothing, the self-contradictory.

Transcendental Dialectic: Introduction; the ideas of pure reason

Reason's drive toward the unconditioned, and the transcendental illusion it produces.

EINLEITUNG. I VOM TRANSSCENDENTALEN SCHEIN.

234 We called dialectic in general, above, a *logic* of *illusion*. This does not mean that it is a doctrine of *probability*. For probability is truth, but truth cognized through insufficient grounds; the cognition of it is therefore deficient, but not on that account deceptive, and so it need not be separated from the analytic part of logic. Still less may *appearance* and *illusion* be taken to be the same. For truth or illusion are not in the object insofar as it is intuited, but in the judgment about it insofar as it is thought. It can therefore rightly be said that the senses do not err—not, however, because they always judge correctly, but because they do not judge at all.[1] Hence truth as well as error, and so also illusion as the temptation to error, are to be found only in judgment, that is, only in the relation of the object to our understanding. In a cognition that thoroughly agrees with the laws of the understanding there is no error. In a representation of the senses there is (because it contains no judgment at all) no error either. But no force of nature can of itself deviate from its own laws. Hence neither the understanding by itself alone (without the influence of another cause) nor the senses by themselves would err. The understanding would not, because if it acts

1 Kant plays on the German: *Schein* (illusion, semblance), *Wahrscheinlichkeit* (probability, literally "seeming true") and *Erscheinung* (appearance) share a root.

merely according to its own laws, the effect (the judgment) must necessarily agree with these laws. And the formal element of all truth consists in agreement with the laws of the understanding. In the senses there is no judgment at all, neither a true one nor a false one. Now since we have no sources of cognition besides these two, it follows [235] that error is brought about only by the unnoticed influence of sensibility on the understanding. Through this influence it happens that the subjective grounds of the judgment merge with the objective ones and make them deviate from their proper function.[2] In the same way a body in motion would of itself always keep to a straight line in the same direction, but it swerves into curvilinear motion if another force, acting in another direction, influences it at the same time. In order to distinguish the proper action of the understanding from the force that mixes in with it, it will therefore be necessary to regard the erroneous judgment as the diagonal between two forces. These determine the judgment in two different directions, which, as it were, enclose an angle; and that composite effect must be resolved into the simple effects of the understanding and of sensibility. In pure judgments *a priori* this must be done by transcendental reflection, through which (as has already been indicated) each representation is assigned its place in the cognitive power appropriate to it, and hence the influence of sensibility on the understanding is also distinguished.

Our business here is not to deal with empirical illusion (optical illusion, for example), which occurs in the empirical use of otherwise correct rules of the understanding, and through which the power of judgment is misled by the influence of imagination. We are concerned solely with *transcendental illusion*. This influences principles whose use is not even directed at experience—in which case we would at least have a touchstone of their correctness. Instead, in defiance of all the warnings of

2 KANT'S NOTE. Sensibility, placed under the understanding as the object to which the understanding applies its function, is the source of real cognitions. But the very same sensibility, insofar as it influences the act of the understanding itself and determines it to judge, is the ground of error.

critique, it carries us entirely beyond the empirical use of the categories and holds us off with the deception of an expansion of *pure understanding*. We will call the principles whose application stays wholly and completely within the limits of possible experience *immanent*, and those, on the other hand, that are supposed to fly beyond these boundaries *transcendent* principles. By the latter, however, I do not mean the *transcendental* [236] use or misuse of the categories. That is a mere error of the power of judgment when it is not duly curbed by critique and does not pay enough attention to the boundary of the territory on which alone pure understanding is allowed its play. I mean, rather, actual principles that call on us to tear down all those boundary posts and to lay claim to an entirely new territory that recognizes no demarcation anywhere. Hence *transcendental* and *transcendent* are not the same. The principles of pure understanding that we set out above are to be of merely empirical and not of transcendental use, that is, not of a use that reaches beyond the boundary of experience. But a principle that removes these limits, and even commands us to overstep them, is called *transcendent*. If our critique can succeed in uncovering the illusion of these presumptuous principles, then those principles of merely empirical use can be called, in contrast to the latter, *immanent* principles of pure understanding.

Logical illusion, which consists in the mere imitation of the form of reason (the illusion of fallacies), arises solely from a lack of attention to the logical rule. As soon as this rule is sharply applied to the case at hand, therefore, the illusion vanishes entirely. Transcendental illusion, by contrast, does not cease even after it has been uncovered and its nullity clearly seen through by transcendental critique (for example, the illusion in the proposition: the world must have a beginning in time). The cause of this is as follows. In our reason (considered subjectively, as a human cognitive faculty) there lie fundamental rules and maxims of its use that have entirely the look of objective principles. Through them it comes about that the subjective necessity of a certain connection of our concepts, for the benefit

of the understanding, is taken for an objective necessity in the determination of things in themselves. This is an *illusion* that cannot be avoided at all—no more than we can avoid the sea's seeming higher in the middle than at the shore, since we see the middle through higher rays of light than the shore; or, still more, no more than even the astronomer can prevent the moon from seeming larger to him as it rises, although he is not deceived by this illusion.

Transcendental dialectic will therefore content itself with uncovering the illusion of transcendent judgments while at the same time preventing [237] it from deceiving us. But that the illusion should also vanish (as logical illusion does) and cease to be an illusion—this it can never bring about. For we are dealing with a *natural* and unavoidable *illusion*, which itself rests on subjective principles and passes them off as objective ones. Logical dialectic, by contrast, in resolving fallacies, has to do only with an error in following principles, or with an artificial illusion in imitating them. There is, therefore, a natural and unavoidable dialectic of pure reason. It is not one in which some bungler might entangle himself through lack of knowledge, or one that some sophist has artfully devised in order to confuse reasonable people. It is one that irremediably attaches to human reason, and that, even after we have uncovered its deception, will still not cease to dazzle reason with false appearances and to push it continually into momentary aberrations that always need to be removed.

II. PURE REASON AS THE SEAT OF TRANSCENDENTAL ILLUSION. A. ON REASON IN GENERAL

Reason is the faculty of principles, which seeks the unity of the understanding's rules.

All our cognition starts from the senses, goes from there to the understanding, and ends with reason. There is nothing higher than reason to be found in us for working up the material of intuition and bringing it under the highest unity of thinking. Now that I am to give an explanation of this supreme cognitive

power, I find myself in some difficulty. There is, of reason as of the understanding, a merely formal, that is, logical use, in which reason abstracts from all content of cognition. But there is also a real use, since reason itself contains the origin of certain concepts and principles that it borrows neither from the senses nor from the understanding. The former faculty has, of course, long been explained by logicians as the faculty of inferring mediately (as distinguished from immediate inferences, *consequentiis immediatis* [immediate consequences]). But the second faculty, which itself generates concepts, is not yet [238] understood by this. Now since a division of reason into a logical and a transcendental faculty comes up here, a higher concept of this source of cognition must be sought, one that comprises both concepts under it. Meanwhile, by analogy with the concepts of the understanding, we can expect that the logical concept will also provide the key to the transcendental one, and that the table of the functions of the former will at once provide the family tree of the concepts of reason.

In the first part of our transcendental logic we explained the understanding as the faculty of rules. Here we will distinguish reason from it by calling reason the *faculty of principles*.

The expression "principle" is ambiguous. Commonly it means only a cognition that can be used as a principle, even though in itself and by its own origin it is no principle. Every universal proposition, even one drawn from experience (by induction), can serve as the major premise in a syllogism; but it is not on that account itself a principle. Mathematical axioms (for example, that between two points there can be only one straight line) are even universal cognitions *a priori*, and so they are rightly called principles relative to the cases that can be subsumed under them.[3] But I cannot on that account say that I cognize this property of straight lines, in general and in itself, from principles; I cognize it only in pure intuition.

I would therefore call cognition from principles that cognition in which I cognize the particular in the universal through

concepts. Thus every syllogism is a form of deriving a cognition from a principle. For the major premise always gives a concept that brings it about that everything subsumed under its condition is cognized from it according to a principle. Now since every universal cognition can serve as the major premise in a syllogism, and the understanding offers such universal propositions *a priori*, these too can be called principles with respect to their possible use.

But if we consider these principles of pure understanding in themselves, according to their origin, they are anything but cognitions from concepts. For they would not even be possible *a priori* if we did not bring in pure intuition (in mathematics) or conditions of a possible experience in general. That everything [239] that happens has a cause cannot be inferred at all from the concept of what happens in general. On the contrary, the principle shows how one can first obtain a determinate concept of experience of what happens.

The understanding, therefore, cannot supply synthetic cognitions from concepts at all; and it is really these that I call principles without qualification, while all universal propositions in general can be called comparative principles.

It is an old wish—which perhaps, who knows how late, will one day be fulfilled—that instead of the endless manifold of civil laws, their principles might at last be sought out. For in this alone can lie the secret of simplifying legislation, as people say. But here the laws are also only limitations of our freedom to conditions under which it thoroughly agrees with itself. Hence they concern something that is entirely our own work, and of which we ourselves can be the cause through those concepts. But how objects in themselves, how the nature of things, should stand under principles and be determined according to mere concepts—this is a demand that is, if not something impossible, at least very absurd. However this may be (for we still have the investigation of it before us), this much at least is clear from it:

3 "Syllogism" renders *Vernunftschluss*, literally an "inference of reason"; the "major premise" (*Obersatz*) is its first, universal premise.

cognition from principles (in itself) is something entirely different from mere cognition of the understanding. The latter can indeed also precede other cognitions in the form of a principle; but in itself (insofar as it is synthetic) it neither rests on mere thinking nor contains within it something universal according to concepts.

If the understanding is a faculty of the unity of appearances by means of rules, then reason is the faculty of the unity of the rules of the understanding under principles. Reason therefore never applies directly to experience or to any object, but to the understanding, in order to give its manifold cognitions *a priori* unity through concepts. This unity may be called the unity of reason, and it is of an entirely different kind from any unity that the understanding can achieve.

That is the general concept of the faculty of reason, so far as it could be made comprehensible in the complete absence of examples (which are to be given only later on).

B. ON THE LOGICAL USE OF REASON

Syllogisms subsume cognitions under rules and come in three kinds: categorical, hypothetical, disjunctive.

[240] A distinction is made between what is cognized immediately and what is only inferred. That in a figure bounded by three straight lines there are three angles is cognized immediately; but that these angles together equal two right angles is only inferred. Because we constantly need to infer, and so in the end become entirely accustomed to it, we eventually no longer notice this distinction. Often, as in the so-called deception of the senses, we take something to be immediately perceived that we have in fact only inferred. In every inference there is *one* proposition that lies at the basis, and *another*, namely the conclusion, that is drawn from it; and finally there is the consequence (the inferential link), according to which the truth of the latter is inescapably connected with the truth of the former. If the inferred judgment already lies in the first in such a way that it

can be derived from it without the mediation of a third representation, the inference is called immediate (*consequentia immediata* [immediate consequence]); I would rather call it an inference of the understanding. But if, besides the cognition taken as the basis, yet another judgment is needed to bring about the conclusion, the inference is called a syllogism. In the proposition *all human beings are mortal* there already lie the propositions: some human beings are mortal; some mortals are human beings; nothing that is immortal is a human being. These are therefore immediate inferences from the former. By contrast, the proposition "all scholars are mortal" does not lie in the underlying judgment (for the concept of scholars does not occur in it at all), and it can be inferred from that judgment only by means of an intermediate judgment.

In every syllogism I first think a *rule* (the *major* [premise]) through the *understanding*. Second, I *subsume* a cognition under the condition of the rule (the *minor* [premise]) by means of the *power of judgment*. Finally, I determine my cognition through the predicate of the rule (the *conclusio* [conclusion]), and hence *a priori* through *reason*. The relation, therefore, that the major premise, as the rule, represents between a cognition and its condition constitutes the different kinds of syllogism. They [241] are therefore exactly threefold—just as all judgments in general are, insofar as they differ in the way they express the relation of cognition in the understanding—namely: *categorical*, *hypothetical* or *disjunctive* syllogisms.

Suppose, as mostly happens, that the conclusion is set as a task, as a judgment, in order to see whether it does not follow from judgments already given, namely judgments through which an entirely different object is thought. Then I look in the understanding for the assertion of this conclusion, to see whether it is not found there under certain conditions according to a universal rule. If I now find such a condition, and if the object of the conclusion can be subsumed under the given condition, then the conclusion is inferred from the rule, *which also holds for other objects of cognition*. From this one sees that in infer-

ring, reason seeks to bring the great manifold of the understanding's cognition down to the smallest number of principles (universal conditions), and thereby to achieve the highest unity of that cognition.

C. ON THE PURE USE OF REASON

Reason's logical maxim to seek the unconditioned turns into a synthetic principle of pure reason.

Can reason be isolated, and is it then still a source of its own of concepts and judgments that arise solely from it and through which it relates to objects? Or is it a merely subordinate faculty for giving given cognitions a certain form, called logical—a form through which the cognitions of the understanding are merely subordinated to one another, and lower rules to other, higher ones (whose condition comprises the condition of the lower ones within its sphere), so far as this can be accomplished by comparing them? This is the question with which we are now occupied, only provisionally. In fact, manifoldness of rules and unity of principles is a demand of reason, in order to bring the understanding into thoroughgoing coherence with itself, just as the understanding brings the manifold of intuition under concepts and thereby into connection. But such a principle prescribes no law to objects, and does not contain the ground of the possibility of cognizing and determining them as such in general. It is merely a subjective law for managing the supply held by our understanding: by comparing its concepts, to bring the universal [242] use of them down to the smallest possible number of them. It gives us no right, on that account, to demand from the objects themselves such a consistency as would serve the convenience and extension of our understanding, and at the same time to give that maxim objective validity. In a word, the question is: does reason in itself, that is, pure reason *a priori*, contain synthetic principles and rules, and in what might these principles consist?

The formal and logical procedure of reason in syllogisms already gives us sufficient guidance as to the ground on which its transcendental principle in synthetic cognition through pure reason will rest.

First, the syllogism does not apply to intuitions, in order to bring them under rules (as the understanding does with its categories), but to concepts and judgments. So even if pure reason does apply to objects, it has no immediate relation to them and their intuition, but only to the understanding and its judgments, which turn directly to the senses and their intuition in order to determine their object. The unity of reason is therefore not the unity of a possible experience, but is essentially different from that unity, which is the unity of the understanding. That everything that happens has a cause is not at all a principle cognized and prescribed by reason. It makes the unity of experience possible and borrows nothing from reason, which, without this relation to possible experience, could not have commanded any such synthetic unity from mere concepts.

Second, reason in its logical use seeks the universal condition of its judgment (the conclusion), and the syllogism is itself nothing other than a judgment made by means of subsuming its condition under a universal rule (the major premise). Now since this rule is in turn exposed to the same attempt of reason, and the condition of the condition must thereby be sought (by means of a prosyllogism) as far as this can go, one clearly sees that the proper principle of reason in general (in its logical use) is: to find, for the conditioned cognition of the understanding, the unconditioned, with which its unity is completed.[4]

[243] But this logical maxim can become a principle of *pure reason* only by our assuming that if the conditioned is given, then the whole series of conditions subordinated to one another —a series that is therefore itself unconditioned—is also given (that is, contained in the object and its connection).

Such a principle of pure reason, however, is plainly *synthetic*. For the conditioned is analytically related to some condition or

other, but not to the unconditioned. From it, moreover, various synthetic propositions must also arise of which pure understanding knows nothing, since it has to do only with objects of a possible experience, whose cognition and synthesis are always conditioned. The unconditioned, however, if it actually occurs, can be considered separately according to all the determinations that distinguish it from everything conditioned, and so must provide material for many synthetic propositions *a priori*.

The principles arising from this supreme principle of pure reason will, however, be *transcendent* with respect to all appearances; that is, no empirical use adequate to it can ever be made of it. It will therefore be entirely distinct from all principles of the understanding, whose use is wholly *immanent*, since they have only the possibility of experience as their theme. Does that principle—that the series of conditions (in the synthesis of appearances, or even in the thinking of things in general) extends to the unconditioned—have its objective correctness or not? What consequences follow from it for the empirical use of the understanding? Or is there, rather, no such objectively valid proposition of reason anywhere, but only a merely logical precept: in ascending to ever higher conditions, to approach their completeness and thereby to bring into our cognition the highest unity of reason possible for us? Has this need of reason, I say, been taken through a misunderstanding for a transcendental principle of pure reason, one that overhastily postulates such unlimited completeness of the series of conditions in the objects themselves? And in that case, what misinterpretations and delusions may creep into the syllogisms whose major premise is taken from pure reason (and is perhaps more a petition than a postulate), and which ascend from experience to its conditions? All this will be our business in the transcendental dialectic, [244] which we now wish to develop from its sources,

4 A prosyllogism is a syllogism whose conclusion serves as a premise of a further syllogism; here, one that proves the major premise of the first.

deeply hidden in human reason.[5] We will divide it into two main parts. The first will deal with the *transcendent concepts* of pure reason, the second with its transcendent and *dialectical syllogisms*.

BOOK ONE OF THE TRANSCENDENTAL DIALECTIC: ON THE CONCEPTS OF PURE REASON

Concepts of reason are inferred rather than reflected, and aim beyond all experience.

Whatever may be the case with the possibility of concepts from pure reason, they are at any rate not merely reflected concepts but inferred ones. Concepts of the understanding are also thought *a priori*, prior to experience and for the sake of it; but they contain nothing more than the unity of reflection on appearances, insofar as these are necessarily to belong to a possible empirical consciousness. Through them alone does cognition and determination of an object become possible. They therefore first supply material for inferring, and they are not preceded by any concepts *a priori* of objects from which they could be inferred. Their objective reality, on the other hand, rests solely on this: because they constitute the intellectual form of all experience, their application must always be capable of being shown in experience.

The very name of a concept of reason, however, already indicates provisionally that it will not let itself be confined within experience. For it concerns a cognition of which every empirical cognition is only a part (perhaps the whole of possible experience or of its empirical synthesis): a cognition to which no actual experience ever fully reaches, but to which every actual experience nonetheless always belongs. Concepts of reason serve for *comprehending*, as concepts of the understanding serve for *understanding* (perceptions). If they contain the

5 A "petition" (Latin *petitio*) is a request that the point be granted without proof—as in *petitio principii*, begging the question—whereas a postulate is legitimately assumed.

unconditioned, they concern something under which all experience falls, but which is itself never an object of experience: something to which reason leads in its inferences from experience, and by which it estimates and [245] measures the degree of its empirical use, but which never forms a member of the empirical synthesis.[6] If such concepts nevertheless have objective validity, they can be called *conceptus ratiocinati* (correctly inferred concepts); if not, they have at least been obtained surreptitiously through an illusion of inference, and may be called *conceptus ratiocinantes* (sophistical concepts). But since this can be settled only in the chapter on the dialectical inferences of pure reason, we cannot yet take it into account. Instead, just as we called the pure concepts of the understanding categories, we will provisionally give the concepts of pure reason a new name and call them transcendental ideas. This name, however, we will now explain and justify.

SECTION ONE: ON IDEAS IN GENERAL

Kant revives Plato's word "idea" for concepts that no object of experience can ever match.

For all the great wealth of our languages, the thinking mind often finds itself at a loss for the expression that precisely fits its concept; and lacking it, the thinker can make himself properly understood neither to others nor even to himself. Coining new words is a presumption to legislate in language that seldom succeeds. Before resorting to this desperate means, it is advisable to look about in a dead and learned language, to see whether this concept is not found there together with its appropriate expression. And even if the old use of the expression has become somewhat unsteady through the carelessness of its originators, it is still better to fix the meaning that was especially its own (even if it should remain doubtful whether exactly the same

6 Kant contrasts *Begreifen* (grasping in concepts, comprehending) with *Verstehen* (understanding), the activities of reason and of the understanding respectively.

meaning was intended back then) than to ruin one's business merely by making oneself unintelligible.

For this reason, if for a certain concept there should be only a single word that, in its already established meaning, precisely fits this concept—a concept whose distinction from other related concepts is of great importance—it is advisable not to be wasteful with that word, or to use it merely for variety as a synonym in place of others, but to preserve [246] its own proper meaning carefully. Otherwise it easily happens that once the expression no longer especially occupies our attention, but is lost among the crowd of others of very different meaning, the thought that it alone could have preserved is lost as well.

Plato made use of the expression *idea* in such a way that one can well see he understood by it something that is not only never borrowed from the senses but even far surpasses the concepts of the understanding with which Aristotle occupied himself, since nothing congruent with it is ever encountered in experience. For him, ideas are archetypes of things themselves, and not merely keys to possible experiences, as the categories are. In his opinion they flowed out of the highest reason and from there were imparted to human reason. Human reason, however, is now no longer in its original state, but must laboriously call back the old, now very obscured ideas through recollection (which is called philosophy).[7] I do not wish to enter here into any literary investigation to settle the sense that the sublime philosopher attached to his expression. I note only that it is not at all unusual, in ordinary conversation as well as in writings, to understand an author even better than he understood himself, by comparing the thoughts he expresses about his subject. For he did not determine his concept sufficiently, and so at times spoke, or even thought, contrary to his own intention.

Plato noted very well that our cognitive power feels a far higher need than merely to spell out appearances according to synthetic unity in order to be able to read them as experience.

7 Plato's doctrine of recollection (*anamnēsis*) appears in the *Meno* and *Phaedo*: learning is the soul's remembering of the forms it knew before birth.

He saw that our reason naturally soars up to cognitions that go much too far for any object that experience can give ever to be congruent with them, but which nonetheless have their reality and are by no means mere figments of the brain.

Plato found his ideas above all in everything that is practical,[8] that is, that rests on freedom, which for its part stands under cognitions that are a [247] proper product of reason. Whoever wanted to draw the concepts of virtue from experience—whoever wanted to make what can at best serve as an example for imperfect illustration into a pattern for the source of cognition (as many have in fact done)—would make of virtue an ambiguous non-thing, changeable with time and circumstances and useless for any rule. On the contrary, everyone is aware that when someone is presented to him as a pattern of virtue, he always has the true original only in his own head, and compares this alleged pattern with it and assesses it solely by that standard. This original, however, is the idea of virtue. With respect to it, all possible objects of experience do service as examples (proofs that what the concept of reason demands is to some degree feasible), but not as archetypes. That no human being will ever act adequately to what the pure idea of virtue contains does not at all prove that there is something chimerical in this thought. For all judgment about moral worth or unworth is nonetheless possible only by means of this idea; hence it necessarily lies at the basis of every approach to moral perfection, however far the obstacles in human nature—obstacles whose degree cannot be determined—may keep us from it.

Plato's Republic has become proverbial as a supposedly striking example of a dreamed-up perfection that can have its seat

only in the brain of an idle thinker; and *Brucker* finds it ridiculous that the philosopher asserted that no prince would ever govern well unless he partook of the ideas. But we would do better to pursue this thought further and (where the excellent man leaves us without help) to bring it to light through fresh efforts, rather than to set it aside as useless under the very wretched and harmful pretext that it is impracticable.[9] A constitution providing for the *greatest human freedom* according to laws that make *the freedom of each able to coexist with the freedom of all others* (not the greatest happiness, for that will follow of itself) is at least a necessary idea. It must be laid at the foundation not merely in the [248] first draft of a political constitution but in all laws as well. And in doing so we must at first abstract from the present obstacles, which may perhaps arise not so much unavoidably from human nature as from the neglect of genuine ideas in legislation. For nothing can be found more harmful, or more unworthy of a philosopher, than the vulgar appeal to supposedly contrary experience. That experience would not exist at all if those institutions had been established at the right time in accordance with the ideas, and if crude concepts—crude precisely because they were drawn from experience—had not taken their place and frustrated every good intention. The more closely legislation and government were brought into agreement with this idea, the rarer punishments would indeed become; and so it is entirely reasonable (as Plato asserts) that, were they perfectly ordered, no punishments of this kind would be needed at all. Now even though this last may never come

8 KANT'S NOTE. He did, admittedly, extend his concept to speculative cognitions as well, provided they were pure and given entirely *a priori*—even to mathematics, although mathematics has its object nowhere but in possible experience. In this I cannot follow him, any more than in the mystical deduction of these ideas, or in the exaggerations by which he, as it were, hypostatized them. Yet the lofty language he used in this field is quite capable of a milder interpretation, one more in keeping with the nature of things.

TRANSLATOR'S NOTE. To hypostatize is to treat a mere thought as if it were a self-subsistent thing.

9 Johann Jakob Brucker (1696–1770), German historian of philosophy, author of the *Historia critica philosophiae* (1742–44).

about, the idea that sets up this maximum as an archetype is nonetheless entirely correct, in order to bring the legal constitution of human beings ever nearer to the greatest possible perfection. For what the highest degree may be at which humanity must come to a halt, and so how great the gap that necessarily remains between the idea and its execution may be—this no one can or should determine, precisely because it is freedom, which can exceed any assigned boundary.

But it is not only where human reason displays true causality, and where ideas become efficient causes (of actions and their objects)—namely, in the moral sphere—that Plato sees clear proofs of their origin from ideas. He rightly sees them in regard to nature itself as well. A plant, an animal, the regular arrangement of the cosmos (and presumably, therefore, the whole order of nature) clearly show that they are possible only according to ideas. No single creature, under the single conditions of its existence, is congruent with the idea of what is most perfect of its kind (any more than a human being is congruent with the idea of humanity, which he himself carries in his soul as the archetype of his actions). Yet those ideas are, in the highest understanding, singular, unchangeable, thoroughly determined, and the original causes of things; and only the whole of their combination in the universe is fully adequate to that idea, alone and uniquely. If [249] we set aside the exaggeration in his expression, the philosopher's flight of mind—rising from the slavishly copying consideration of the physical in the world order to its architectonic connection according to ends, that is, according to ideas—is an endeavor that deserves respect and emulation. But in regard to the principles of morality, of legislation, and of religion, where ideas first make experience itself (of the good) possible, even though they can never be fully expressed in it, it is a quite distinctive merit. This merit goes unrecognized only because people judge it by the very empirical rules whose validity as principles those ideas were meant to abolish. For in regard to nature, experience gives us the rule and is the source of truth. But in regard to moral laws, experience is (alas!) the mother of

illusion, and it is most reprehensible to take the laws concerning what I *ought to do* from what *is done*, or to seek to limit them by it.

Instead of all these reflections, whose proper development in fact constitutes the distinctive dignity of philosophy, we now occupy ourselves with a less brilliant but still not unmeritorious labor: namely, leveling the ground for those majestic moral edifices and making it firm enough to build on. For in this ground there are all sorts of mole tunnels, dug by a reason that searches for treasure in vain but with good confidence, and they make that building insecure. It is therefore the transcendental use of pure reason, its principles and ideas, that we are now obliged to know precisely, in order to be able to determine and appraise properly the influence of pure reason and its worth. Before I set aside this preliminary introduction, however, I ask those who have philosophy at heart (which is saying more than one commonly finds) to take the expression *idea* under their protection in its original meaning, if they find themselves convinced by this and what follows. Otherwise it will henceforth fall among the other expressions commonly used to designate all sorts of kinds of representation in careless disorder, and science will suffer for it. We are, after all, not short of names properly suited to each kind of representation, so that we have no need to encroach on the property of another. Here is a graded series of them. The genus is *representation* in general (*repraesentatio*). [250] Under it stands representation with consciousness (*perceptio*). A *perception* that refers solely to the subject, as the modification of its state, is sensation (*sensatio*); an objective perception is *cognition* (*cognitio*). Cognition is either *intuition* or *concept* (*intuitus vel conceptus*). The former refers immediately to the object and is singular; the latter refers to it mediately, by means of a mark that can be common to several things. A concept is either an *empirical* or a *pure concept*; and the pure concept, insofar as it has its origin solely in the understanding (not in a pure image of sensibility), is called a *notio*. A concept made up of notions that exceeds the possibility of experience is an *idea*, or concept of

reason. Anyone who has once grown used to this distinction must find it intolerable to hear the representation of the color red called an idea.[10] It is not even to be called a notion (a concept of the understanding).

SECTION TWO: ON THE TRANSCENDENTAL IDEAS

The three forms of syllogism yield ideas of the unconditioned totality of conditions.

The Transcendental Analytic gave us an example of how the mere logical form of our cognition can contain the origin of pure concepts *a priori*. These concepts represent objects prior to all experience, or rather indicate the synthetic unity that alone makes an empirical cognition of objects possible. The form of judgments (converted into a concept of the synthesis of intuitions) produced categories, which guide all use of the understanding in experience. In the same way we can expect that the form of syllogisms, when applied to the synthetic unity of intuitions under the direction of the categories, will contain the origin of special concepts *a priori*. These we may call pure concepts of reason, or *transcendental ideas*, and they will determine the use of the understanding in the whole of all experience according to principles.

The function of reason in its inferences consisted in the universality of cognition according to concepts, and the syllogism itself [251] is a judgment determined *a priori* in the whole extent of its condition. The proposition "Caius is mortal" I could also draw from experience merely through the understanding. But I seek a concept that contains the condition under which the predicate (assertion in general) of this judgment is given—here, the concept of a human being. And after I have subsumed under this condition, taken in its whole extent ("all human beings are

10 *Intuitus vel conceptus* (Latin): intuition or concept. *Notio* (Latin): notion; Kant's term for a pure concept of the understanding.

mortal"), I determine accordingly the cognition of my object ("Caius is mortal").[11]

Accordingly, in the conclusion of a syllogism we restrict a predicate to a certain object, after having first thought it in the major premise in its whole extent under a certain condition. This complete magnitude of extent in relation to such a condition is called *universality* (*universalitas*). To it there corresponds, in the synthesis of intuitions, *allness* (*universitas*), or the *totality* of conditions. So the transcendental concept of reason is none other than the concept of the *totality of conditions* for a given conditioned. Now since the *unconditioned* alone makes the totality of conditions possible, and conversely the totality of conditions is always itself unconditioned, a pure concept of reason in general can be explained through the concept of the unconditioned, insofar as it contains a ground of the synthesis of the conditioned.

There will be as many pure concepts of reason, then, as there are kinds of relation that the understanding represents to itself by means of the categories. We shall therefore have to seek, *first*, an *unconditioned* of the *categorical* synthesis in a *subject*; *second*, of the *hypothetical* synthesis of the members of a *series*; *third*, of the *disjunctive* synthesis of the parts in a *system*.

For there are just as many kinds of syllogism, each of which advances through prosyllogisms to the unconditioned: the first to the subject that is no longer itself a predicate; the second to the presupposition that presupposes nothing further; and the third to an aggregate of the members of the division that requires nothing further to complete the division of a concept. Hence the pure concepts of reason of totality in the synthesis of conditions are necessary, at least as problems set for continuing the unity of the understanding, if possible, up to the unconditioned; and they are grounded in the nature of human [252] reason. This holds even though these transcendental concepts may otherwise lack any use suited to them *in concreto*, and so have no

11 Caius (Gaius): the stock name used in logic textbooks for an individual human being.

other benefit than to direct the understanding in the way by which its use, while extended to the utmost, is at the same time made thoroughly consistent with itself.

But in speaking here of the totality of conditions and of the unconditioned as the common title of all concepts of reason, we come once again upon an expression we cannot do without, yet cannot safely use because of an ambiguity that has clung to it through long misuse. The word *absolute* is one of the few words that in their original meaning were fitted to a concept to which no other word of the same language has since been exactly suited. Its loss—or, what amounts to the same thing, its wavering use—must therefore entail the loss of the concept itself. And this is a concept that, because it occupies reason so greatly, cannot be done without except to the great detriment of all transcendental judgments. The word *absolute* is now often used merely to indicate that something holds of a thing considered *in itself*, and thus *internally*. In this meaning, *absolutely possible* would mean what is possible in itself (*interne*), which is in *fact the least* that one can say of an object. On the other hand, it is also sometimes used to indicate that something is valid in every relation (without restriction)—for example, absolute rule. In this meaning, *absolutely possible* would mean what is possible in every respect, *in every relation*, which again is *the most* that I can say about the possibility of a thing. Now these meanings do sometimes coincide. For example, what is internally impossible is also impossible in every relation, and hence absolutely impossible.[12] But in most cases they lie infinitely far apart, and I can in no way infer that because something is possible in itself, it is therefore also possible in every relation, and hence absolutely possible. Indeed, I shall show later that absolute necessity by no means depends in all cases on internal necessity, and so must not be regarded as synonymous with it. If the opposite of something is internally impossible, then its opposite is of course also impossible in every respect, and so the thing itself is absolutely necessary. But I cannot infer conversely that if something

12 *Interne* (Latin): internally.

[253] is absolutely necessary, its opposite is *internally* impossible—that is, that the *absolute* necessity of things is an *internal* necessity. For this internal necessity is in certain cases a quite empty expression, with which we cannot connect the least concept, whereas the concept of the necessity of a thing in every relation (to everything possible) carries with it quite special determinations. Now since the loss of a concept of great application in speculative philosophy can never be a matter of indifference to the philosopher, I hope that the determination and careful preservation of the expression on which the concept depends will not be a matter of indifference to him either.

It is in this extended meaning, then, that I shall use the word *absolute*, and I shall oppose it to what is valid merely comparatively, or in some particular respect. For the latter is restricted to conditions, whereas the former holds without restriction.

Now the transcendental concept of reason always aims only at absolute totality in the synthesis of conditions, and never ends except with what is unconditioned absolutely, that is, in every relation. For pure reason leaves everything to the understanding, which refers in the first instance to the objects of intuition, or rather to their synthesis in the imagination. Reason reserves for itself only absolute totality in the use of the concepts of the understanding, and seeks to carry the synthetic unity that is thought in the category out to the absolutely unconditioned. We can therefore call this the *unity of reason* of appearances, just as we can call the unity that the category expresses the *unity of the understanding*. Reason therefore refers only to the use of the understanding—and not insofar as this contains the ground of possible experience (for the absolute totality of conditions is not a concept usable in any experience, since no experience is unconditioned), but in order to prescribe to it the direction toward a certain unity. Of this unity the understanding has no concept, and it aims at comprehending all acts of the understanding, in regard to every object, in an *absolute whole*. Hence the objective use of the pure concepts of reason is always *transcendent*, whereas that of the pure concepts of the understanding

must by its nature always be *immanent*, since it is restricted solely to possible experience.

[254] By an idea I understand a necessary concept of reason to which no congruent object can be given in the senses. The pure concepts of reason we have just considered are therefore *transcendental ideas*. They are concepts of pure reason, for they regard all cognition from experience as determined by an absolute totality of conditions. They are not arbitrarily invented, but set as a task by the nature of reason itself, and they therefore refer necessarily to the whole use of the understanding. Finally, they are transcendent, and exceed the boundary of all experience, in which no object adequate to the transcendental idea can therefore ever occur. When one names an idea, one says *a great deal* with regard to the object (as an object of the pure understanding), but with regard to the subject (that is, with regard to its actuality under empirical conditions) one says *very little*, precisely because, as the concept of a maximum, it can never be given congruently *in concreto*. Now since the latter is really the whole aim in the merely speculative use of reason, and since approaching a concept that is nevertheless never reached in practice amounts to the same as missing the concept altogether, one says of such a concept: it is *only* an idea. Thus one could say that the absolute whole of all appearances is *only an idea*; for since we can never sketch such a thing in an image, it remains a *problem* without any solution. In the practical use of the understanding, by contrast, the whole concern is with execution according to rules, and so the idea of practical reason can always actually be given *in concreto*, though only in part. Indeed, it is the indispensable condition of every practical use of reason. Its execution is always limited and deficient, but within limits that cannot be determined, and so always under the influence of the concept of an absolute completeness. Accordingly the practical idea is always supremely fruitful, and in regard to actual actions indispensably necessary. In it pure reason even has causality to bring about actually what its concept contains. Hence one cannot say of wisdom, as if disparagingly, *it is only an*

idea. On the contrary, precisely because it is the idea of the necessary unity of all possible ends, it must serve as the rule for everything practical, as its original and at least limiting condition.

[255] So although we must say of the transcendental concepts of reason, *they are only ideas*, we shall by no means have to regard them as superfluous and void. For even if no object can be determined through them, they can still, fundamentally and unnoticed, serve the understanding as a canon for its extended and consistent use. Through this the understanding does not cognize any more of an object than it would cognize through its own concepts, but it is better and further guided in this cognition. Not to mention that they may perhaps make possible a transition from the concepts of nature to practical concepts, and in this way provide the moral ideas themselves with support and connection with the speculative cognitions of reason. For the explanation of all this we must wait for what follows.

In keeping with our purpose, however, we set aside the practical ideas here, and therefore consider reason only in its speculative use, and within that more narrowly still, namely only in its transcendental use. Here we must take the same path we took above in the deduction of the categories: we must consider the logical form of the cognition of reason, and see whether reason might not thereby also become a source of concepts for regarding objects in themselves as determined synthetically *a priori* with respect to one or another function of reason.

Reason, considered as the faculty of a certain logical form of cognition, is the faculty of inferring, that is, of judging mediately (through the subsumption of the condition of a possible judgment under the condition of a given one). The given judgment is the universal rule (the major premise, *major*). The subsumption of the condition of another possible judgment under the condition of the rule is the minor premise (*minor*). The actual judgment, which states the assertion of the rule *in the subsumed case*, is the conclusion (*conclusio*). That is: the rule says something universally under a certain condition. Now in a case

at hand the condition of the rule obtains. Therefore what held universally under that condition is regarded as valid in the case at hand too (which carries this condition with it). It is easy to see that reason arrives at a cognition through acts of the understanding that make up a series of conditions. Suppose I arrive at the proposition "all bodies are alterable" only [256] by starting from the more remote cognition (in which the concept of body does not yet occur, but which nevertheless contains its condition) "everything composite is *alterable*"; then go from this to a nearer one, which stands under the condition of the first, "bodies are composite"; and only from this to a third, which now connects the remote cognition (alterable) with the one before me, "consequently bodies are alterable." Then I have arrived at a cognition (conclusion) through a series of conditions (premises). Now every series whose exponent (of the categorical or hypothetical judgment) is given can be continued. Hence this same act of reason leads to *ratiocinatio polysyllogistica*, which is a series of inferences that can be continued to an indeterminate distance either on the side of the conditions (*per prosyllogismos*) or on the side of the conditioned (*per episyllogismos*).[13]

But we soon become aware that the chain or series of prosyllogisms—that is, of cognitions inferred on the side of the grounds or conditions of a given cognition; in other words, the *ascending series* of syllogisms—must relate to the faculty of reason differently from the *descending series*, that is, from reason's progress on the side of the conditioned through episyllogisms. For in the first case the cognition (*conclusio*) is given only as conditioned. So we can arrive at it by means of reason only on the presupposition, at least, that all the members of the series on the side of the conditions are given (totality in the series of premises), since only on this presupposition is the judgment before us possible *a priori*. On the side of the conditioned, or of the consequences, on the other hand, only a series

13 *Ratiocinatio polysyllogistica* (Latin): polysyllogistic reasoning, a chain of syllogisms; *per prosyllogismos* / *per episyllogismos*: by prosyllogisms / by episyllogisms, i.e., syllogisms supplying a premise / drawing a further consequence.

that is *coming to be*, not one already presupposed *as a whole* or *given*, and hence only a potential progress, is thought. Hence if a cognition is regarded as conditioned, reason is compelled to regard the series of conditions in the ascending line as completed and given in its totality. But if the very same cognition is regarded at the same time as the condition of other cognitions, which together make up a series of consequences in a descending line, then reason can be entirely indifferent as to how far this progress extends *a parte posteriori*, and whether totality of this series is possible at all. For it does not need such a series for the conclusion lying before it, since this is already sufficiently determined and secured by its grounds [257] *a parte priori*.[14] Whether or not the series of premises on the side of the conditions has a *first* member as its highest condition, and so whether or not it is without bounds *a parte priori*, it must nonetheless contain totality of the condition, even supposing we could never succeed in grasping it; and the whole series must be unconditionally true if the conditioned, which is regarded as a consequence arising from it, is to count as true. This is a demand of reason, which announces its cognition as determined *a priori* and as necessary: either in itself, and then it needs no grounds; or, if it is derived, as a member of a series of grounds that is itself unconditionally true.

SECTION THREE: SYSTEM OF THE TRANSCENDENTAL IDEAS

The ideas fall into three classes: the thinking subject, the world, and the being of all beings.

We are dealing here not with a logical dialectic, which abstracts from all content of cognition and merely uncovers false illusion in the form of syllogisms, but with a transcendental one. This is meant to contain, wholly *a priori*, the origin of certain cognitions from pure reason, and of inferred concepts whose object cannot be given empirically at all, and which therefore lie

14 *A parte posteriori* / *a parte priori* (Latin): on the side of what comes after / of what comes before.

entirely outside the faculty of the pure understanding. From the natural relation that the transcendental use of our cognition, in inferences as well as in judgments, must have to its logical use, we have gathered that there will be only three kinds of dialectical inference. These relate to the three kinds of inference by which reason can arrive at cognitions from principles; and in all of them its business is to ascend from the conditioned synthesis, to which the understanding always remains bound, to the unconditioned synthesis, which the understanding can never reach.

Now what is universal in every relation our representations can have is: (1) the relation to the subject; (2) the relation to objects, and indeed either as appearances or as objects [258] of thought in general. If we combine this subdivision with the higher one, then every relation of representations of which we can form either a concept or an idea is threefold: (1) the relation to the subject; (2) to the manifold of the object in appearance; (3) to all things in general.

Now all pure concepts in general have to do with the synthetic unity of representations, but concepts of pure reason (transcendental ideas) with the unconditioned synthetic unity of all conditions in general. Consequently all transcendental ideas can be brought under *three classes*. The *first* contains the absolute (unconditioned) *unity* of the *thinking subject*; the *second*, the absolute *unity of the series of conditions of appearance*; the *third*, the absolute *unity of the condition of all objects of thought* in general.

The thinking subject is the object of *psychology*; the sum total of all appearances (the world), the object of *cosmology*; and the thing that contains the highest condition of the possibility of everything that can be thought (the being of all beings), the object of *theology*. Pure reason thus supplies the idea for a transcendental doctrine of the soul (*psychologia rationalis*), for a transcendental science of the world (*cosmologia rationalis*), and finally also for a transcendental cognition of God (*theologia transcendentalis*). Even the mere plan of any one of these sciences

does not derive at all from the understanding, even if it were combined with the highest logical use of reason, that is,[15] with all conceivable inferences, so as to advance from one of its objects (an appearance) to all others, out to the most remote members of the empirical synthesis. Rather, it is solely a pure and genuine product, or problem, of pure reason.

What *modi* of the pure concepts of reason stand under these three titles of all transcendental ideas will be set out completely in the following chapter. They run along the guiding thread of the categories. For pure reason never refers directly to objects, but to the concepts of the understanding of them. Likewise, only in the complete development will it become clear how reason, solely through the synthetic use of the very same function it employs for the categorical syllogism, must necessarily [259] arrive at the concept of the absolute unity of the *thinking subject*; how the logical procedure in hypothetical syllogisms must necessarily bring with it the idea of the absolutely unconditioned *in a series* of given conditions; and finally how the mere form of the disjunctive syllogism must necessarily bring with it the highest concept of reason, that of a *being of all beings*—a thought that at first sight seems extremely paradoxical.

Of these transcendental ideas no *objective deduction*, of the kind we were able to supply for the categories, is really possible. For in fact they have no relation to any object that could be given congruent with them, precisely because they are only ideas. But we could undertake a subjective derivation of them from the nature of our reason; and this has also been accomplished in the present chapter.

It is easy to see that pure reason has no other aim than the absolute totality of synthesis *on the side of the conditions* (whether of inherence, of dependence, or of concurrence), and that it has nothing to do with absolute completeness *on the side of the conditioned*. For it needs only the former in order to presuppose the whole series of conditions, and thereby give it to the under-

15 *Psychologia rationalis*, *cosmologia rationalis*, *theologia transcendentalis* (Latin): rational psychology, rational cosmology, transcendental theology.

standing *a priori*. But once a completely (and unconditionally) given condition is there, a concept of reason is no longer needed with regard to continuing the series; for the understanding takes every step downward, from the condition to the *conditioned*, by itself. In this way the transcendental ideas serve only for *ascending* in the series of conditions up to the unconditioned, that is, to principles. With regard to *descending* to the conditioned, however, there is indeed a widely extended logical use that our reason makes of the laws of the understanding, but no transcendental use at all. And if we form an idea of the absolute totality of such a synthesis (of the *progressus*)—for example, of the whole series of all *future* alterations in the world—this is a thought-entity (*ens rationis*) that is merely thought arbitrarily and is not necessarily presupposed by reason. For the possibility of the conditioned presupposes the totality of its conditions, but not of its consequences.[16] Consequently such a concept is not a transcendental idea—and it is only with these that we are concerned here.

260 Finally, we also become aware that a certain connection and unity shines forth among the transcendental ideas themselves, and that by means of them pure reason brings all its cognitions into a system. To proceed from the cognition of oneself (the soul) to the cognition of the world, and by means of this to the original being, is so natural a progress that it seems similar

16 *Progressus* (Latin): progression, advance.

to reason's logical advance from premises to conclusion[17]. Whether a kinship of the kind that holds between the logical and the transcendental procedure really lies secretly at the basis here is also one of the questions whose answer we must wait for in the further course of these investigations. For the present we have already achieved our purpose. The transcendental concepts of reason are usually mixed in among others in the theories of philosophers, who do not even properly distinguish them from concepts of the understanding. We have been able to draw them out of this ambiguous position, to state their origin and thereby at the same time their determinate number, beyond which there can be no more, and to represent them in a systematic connection. Through this a special field is marked out and bounded for pure reason.

17 KANT'S NOTE. Metaphysics has as the real aim of its inquiry only three ideas: *God*, *freedom*, and *immortality*, in such a way that the second concept, combined with the first, is to lead to the third as a necessary conclusion. Everything else with which this science concerns itself serves it merely as a means of arriving at these ideas and their reality. It does not need them for the sake of natural science, but in order to get beyond nature. Insight into them would make *theology*, *morals*, and, through the combination of both, *religion*—and thus the highest ends of our existence—dependent solely on the speculative faculty of reason and on nothing else. In a systematic presentation of those ideas, the order cited, being the *synthetic* one, would be the most fitting. But in the working-out that must necessarily precede it, the *analytic* order, which reverses this one, will be better suited to the purpose of carrying out our great plan: for we then proceed from what experience immediately offers us, the *doctrine of the soul*, to the *doctrine of the world*, and from there all the way to the cognition of *God*.

The Paralogisms of Pure Reason

Kant's critique of rational psychology: no proof that the soul is a simple, persisting substance.

[261] One can say that the object of a merely transcendental idea is something of which we have no concept, even though this idea was generated quite necessarily in reason according to its original laws. For in fact no concept of the understanding is possible of an object that is supposed to be adequate to the demand of reason either—that is, no concept that could be exhibited and made intuitable in a possible experience. It would be better, however, and less open to misunderstanding, to say that we can have no acquaintance with the object that corresponds to an idea, though we can have a problematic concept of it.

Now the transcendental (subjective) reality of the pure concepts of reason rests at least on this: that we are brought to such ideas by a necessary syllogism. There will therefore be syllogisms that contain no empirical premises, and by means of which we infer from something we know to something else of which we have no concept, and to which we nevertheless, through an unavoidable illusion, give objective reality. With respect to their result, then, such inferences are better called *sophistical* inferences than syllogisms. Given what occasions them, though, they may well bear the latter name, since they are not invented or produced by chance, but have sprung from the nature of reason.[1] They are sophistries not of human beings but of pure reason itself. Even the wisest of all human beings cannot

1 Kant plays on *vernünftelnd* ("sophistical," literally "pseudo-reasoning") against *Vernunftschluss* ("syllogism," literally "inference of reason").

free himself from them; after much effort he may perhaps guard against error, but he can never be entirely rid of the illusion, which ceaselessly teases and mocks him.

There are, then, only three kinds of these dialectical syllogisms—as many as there are ideas in which their conclusions end. In the syllogism of the *first class*, I infer from the transcendental concept of the subject, which contains nothing manifold, the absolute unity of this subject itself, of which in this way I have no [262] concept at all. This dialectical inference I shall call the transcendental *paralogism*. The *second* class of sophistical inferences is directed to the transcendental concept of the absolute totality of the series of conditions for a given appearance in general. From the fact that my concept of the unconditioned synthetic unity of the series is always self-contradictory on one side, I infer the correctness of the opposite unity, of which I nevertheless have no concept either. The state of reason in these dialectical inferences I shall call the *antinomy* of pure reason. Finally, in the *third* kind of sophistical inference, I infer from the totality of conditions for thinking objects in general, insofar as they can be given to me, the absolute synthetic unity of all conditions of the possibility of things in general. That is, from things that I do not know through their merely transcendental concept, I infer a being of all beings, which I know even less through a transcendent concept, and of whose unconditioned necessity I can form no concept. This dialectical syllogism I shall call the *ideal* of pure reason.

BOOK TWO, CHAPTER ONE: ON THE PARALOGISMS OF PURE REASON

Rational psychology tries to derive the nature of the soul from the bare "I think."

A logical paralogism consists in a syllogism's being false in form, whatever its content may otherwise be. A transcendental paralogism, however, has a transcendental ground for inferring falsely in form. In this way such a fallacy will have its ground in

the nature of human reason, and will carry with it an illusion that is unavoidable, though not insoluble.

We now come to a concept that was not listed above in the general list of transcendental concepts and yet must be counted among them, without in the least altering that table or declaring it deficient. This is the concept—or, if one [263] prefers, the judgment—*I think*. It is easy to see, however, that it is the vehicle of all concepts whatever, and hence of transcendental ones too; that it is therefore always included along with them, and so is itself equally transcendental; but that it can have no special title, because it serves only to present all thinking as belonging to consciousness. Yet however pure it is of anything empirical (the impression of the senses), it still serves to distinguish two kinds of objects by the nature of our power of representation. *I*, as thinking, am an object of inner sense and am called soul. What is an object of the outer senses is called body. Accordingly, the expression "I," as a thinking being, already signifies the object of psychology, which can be called the rational doctrine of the soul if I ask to know nothing more about the soul than what can be inferred, independently of all experience (which determines me more closely and *in concreto*), from this concept *I*, insofar as it occurs in all thinking.

Rational doctrine of the soul is really an undertaking of this kind. For if the least empirical element of my thinking, any particular perception of my inner state, were mixed in among the grounds of cognition of this science, it would no longer be a rational but an *empirical* doctrine of the soul. We thus already have before us a would-be science built on the single proposition *I think*, whose grounds or groundlessness we can quite properly examine here, in keeping with the nature of a transcendental philosophy. One should not take offense at the fact that in this proposition, which expresses the perception of oneself, I do after all have an inner experience, so that the rational doctrine of the soul built on it is never pure, but is based in part on an empirical principle. For this inner perception is nothing more than the mere apperception *I think*, which even makes all

transcendental concepts possible, in which what is said is: I think substance, cause, etc. For inner experience in general and its possibility, or perception in general and its relation to other perception, without any particular difference or determination of it being given empirically, cannot be regarded as empirical cognition, but must be regarded as cognition of the empirical in general; and it belongs to the investigation of the possibility of every experience, which is certainly transcendental. The least object of perception (for example, merely [264] pleasure or displeasure) that was added to the general representation of self-consciousness would at once transform rational psychology into an empirical one.

I think is therefore the sole text of rational psychology, from which it is to unfold its entire wisdom. It is easy to see that this thought, if it is to be referred to an object (myself), can contain nothing but transcendental predicates of it, since the least empirical predicate would spoil the science's rational purity and independence from all experience.

Here, however, we shall only have to follow the guiding thread of the categories. But since what is first given here is a thing, I, as thinking being, we shall not alter the order of the categories among themselves as presented in their table above; we shall, however, begin here with the category of substance, through which a thing in itself is represented, and so follow their series backward. The topic of the rational doctrine of the soul, from which everything else it may contain must be derived, is accordingly as follows:

1. The soul is *substance*.

2. As to its quality, *simple*.

3. As to the different times in which it exists, numerically identical, that is, *unity* (not plurality).

4. In relation to *possible* objects in space[2].

[265] From these elements arise all the concepts of the pure doctrine of the soul, solely through their combination, without recognizing the least further principle. This substance, merely as an object of inner sense, yields the concept of *immateriality*; as simple substance, that of *incorruptibility*; its identity as intellectual substance yields *personality*; all three together yield *spirituality*. Its relation to objects in space yields *commercium* with bodies. Hence the doctrine represents the thinking substance as the principle of life in matter, that is, as soul (*anima*) and as the ground of *animality*; and this, limited by spirituality, yields *immortality*.[3]

To these elements, then, correspond four paralogisms of a transcendental doctrine of the soul—a doctrine falsely taken for a science of pure reason concerning the nature of our thinking being. At its basis, however, we can lay nothing but the simple representation *I*, which is by itself entirely empty of content, and of which one cannot even say that it is a concept; it is a mere consciousness that accompanies all concepts. Through this I, or He, or It (the thing), which thinks, nothing further is represented than a transcendental subject of thoughts = X. It is cognized only through the thoughts that are its predicates, and apart from them we can never have the least concept of it. We therefore revolve around it in a constant circle, since we must always already make use of its representation in order to judge anything about it. This inconvenience cannot be separated from it, because consciousness in itself is not so much a representation that distinguishes a particular object as a form of representation

2 KANT'S NOTE. The reader who does not easily guess, from these expressions in their transcendental abstraction, their psychological sense, and why the last attribute of the soul belongs to the category of *existence*, will find them sufficiently explained and justified in what follows. For the rest, as to the Latin expressions that have crept in, against the taste of good style, in place of their German equivalents—both in this section and throughout the whole work—I must offer this excuse: that I have preferred to take something away from the elegance of the language rather than make scholastic usage the least bit harder to understand.

3 *Anima* (Latin): soul, in the sense of what animates.

in general, insofar as it is to be called cognition; for of that alone can I say that through it I think something.

It must seem strange from the very outset, however, that the condition under which I think at all, and which is therefore merely a property of my subject, should at the same time be valid for everything that thinks; and that we can presume to ground an apodictic and universal [266] judgment on a seemingly empirical proposition—namely, that everything that thinks is so constituted as the pronouncement of self-consciousness declares it to be in me. The reason for this, however, lies in the following: we must necessarily ascribe to things *a priori* all the properties that constitute the conditions under which alone we think them. Now I can have not the least representation of a thinking being through any outer experience, but only through self-consciousness. Such objects, therefore, are nothing more than the transference of this consciousness of mine to other things, which only in this way are represented as thinking beings. The proposition "I think," however, is taken here only problematically: not insofar as it may contain a perception of an existence (the Cartesian *cogito, ergo sum*), but as to its mere possibility, in order to see what properties may flow from so simple a proposition to its subject (whether or not any such subject exists).[4]

If our pure rational cognition of thinking beings in general were based on more than the *cogito*—if we also enlisted observations of the play of our thoughts, and the natural laws of the thinking self to be drawn from them—then an empirical psychology would arise. This would be a kind of *physiology* of inner sense; it could perhaps explain the appearances of inner sense, but it could never serve to disclose properties that do not belong to possible experience at all (such as that of simplicity), nor to teach anything *apodictically* about thinking beings in general that concerns their nature. It would therefore not be a *rational* psychology.

Now since the proposition *I think* (taken problematically) contains the form of every judgment of the understanding whatever, and accompanies all categories as their vehicle, it is clear that inferences from it can contain only a transcendental use of the understanding—one that excludes any admixture of experience, and of whose progress, after what we have shown above, we can form no favorable concept in advance. We shall therefore follow it with a critical eye through all the predicaments of the pure doctrine of the soul, but [267] for the sake of brevity let our examination of them proceed in one uninterrupted sequence.[5]

To begin with, the following general remark can sharpen our attention to this mode of inference. It is not by merely thinking that I cognize any object; I can cognize an object only by determining a given intuition with regard to the unity of consciousness, in which all thinking consists. Hence I do not cognize myself by being conscious of myself as thinking, but only when I am conscious of the intuition of myself as determined with regard to the function of thought. All *modi* [modes] of self-consciousness in thinking are therefore not yet concepts of the understanding of objects (categories), but mere logical functions, which give thought no object at all to cognize, and hence do not give me myself as an object to cognize either. The *object* is not the consciousness of the *determining* self, but only that of the *determinable* self, that is, of my inner intuition (insofar as its manifold can be combined in accordance with the universal condition of the unity of apperception in thinking).

1) Now in all judgments I am always the *determining* subject of the relation that makes up the judgment. But that the I who thinks must always count in thinking as *subject*, and as something that cannot be regarded as merely attached to thinking like a predicate, is an apodictic and even *identical proposition*. It does not mean, however, that I as *object* am a *self-subsistent being*, or *substance*. This last goes very far; it therefore also requires

4 *Cogito, ergo sum* (Latin): "I think, therefore I am," Descartes's first certainty.
5 Predicaments: the scholastic name for the categories.

data that are not found in thinking at all—perhaps (insofar as I consider the thinking being merely as such) more than I shall ever find in it at all.[6]

2) That the I of apperception, and hence the I in every act of thinking, is a *singular* that cannot be resolved into a plurality of subjects, and so designates a logically simple subject, lies already in the concept of thinking, and is consequently an analytic proposition. But this does not mean that the thinking I is a simple *substance*, which would be a synthetic proposition. The concept of substance always refers to intuitions, which in me cannot be other than sensible, and which therefore lie wholly outside the field of the understanding and its thinking—and it is really only of this thinking that we speak here when we say that the [268] I is simple in thinking. It would indeed be remarkable if what otherwise requires so much effort—to distinguish, in what intuition presents, what in it is substance, and still more whether this substance can also be simple (as with the parts of matter)—were given to me here so directly, in the poorest of all representations, as if by a revelation.

3) The proposition of the identity of myself throughout all the manifold of which I am conscious is likewise one that lies in the concepts themselves, and is therefore analytic. But this identity of the subject, of which I can become conscious in all its representations, does not concern the intuition of the subject through which it is given as object. It therefore cannot signify the identity of the person, by which is understood the consciousness of the identity of one's own substance, as a thinking being, in all change of its states. To prove that, the mere analysis of the proposition "I think" would not suffice; various synthetic judgments, grounded on the given intuition, would be required.

4) That I distinguish my own existence, as that of a thinking being, from other things outside me (to which my body also belongs) is likewise an analytic proposition; for *other* things are those I think as *distinct* from me. But whether this consciousness

6 Identical proposition: one whose predicate merely repeats its subject, i.e., a tautology.

of myself is even possible without things outside me through which representations are given to me, and hence whether I could exist merely as a thinking being (without being a human being), I do not know at all from this.

Thus through the analysis of the consciousness of myself in thinking in general, nothing whatever is gained for the cognition of myself as object. The logical exposition of thinking in general is mistaken for a metaphysical determination of the object.

It would be a great stumbling block—indeed the only one—for our whole critique if it were possible to prove *a priori* that all thinking beings are in themselves simple substances, that as such they therefore (as follows from the same ground of proof) inseparably carry personality with them, and that they are conscious of their existence as separate from all matter. For in this way we would after all have taken a step beyond the sensible world; we would have entered the field of *noumena*, and then let no one deny us the right to extend ourselves further in it, to settle it, and to take possession of it as each of us is favored by [269] his lucky star. For the proposition "Every thinking being, as such, is a simple substance" is a synthetic proposition *a priori*: first, because it goes beyond the concept on which it is based and adds to thinking in general the *mode of existence*; and second, because it adds to that concept a predicate (simplicity) that cannot be given in any experience at all. It would follow that synthetic propositions *a priori* are feasible and admissible not merely, as we have maintained, in relation to objects of possible experience—and indeed as principles of the possibility of this experience itself—but that they can also apply to things in general and to things in themselves. This consequence would put an end to this whole critique, and would bid us leave everything as it was before. But the danger here is not so great if we look at the matter more closely.

THE FALLACY OF RATIONAL PSYCHOLOGY

The inference that a thinking being is a substance takes "subject" in two different senses.

In the procedure of rational psychology a paralogism prevails, which is presented by the following syllogism.

What cannot be thought otherwise than as subject also does not exist otherwise than as subject, and is therefore substance.

Now a thinking being, considered merely as such, cannot be thought otherwise than as subject.

Therefore it also exists only as such a thing, that is, as substance.

In the major premise, a being is spoken of that can be thought in general, in every respect, and consequently also as it may be given in intuition. In the minor premise, however, it is spoken of only insofar as it considers itself as subject merely relative to thinking and the unity of consciousness, but not at the same time in relation to the intuition through which it is given as object for thinking. The conclusion is therefore drawn *per sophisma figurae dictionis*, and hence by a fallacy.[78]

[270] That this resolution of the famous argument into a paralogism is entirely correct becomes clear if one consults, on this point, the General Remark on the systematic representation of the principles and the section on noumena. There it was proven that the concept of a thing that can exist by itself as subject, but not as a mere predicate, carries with it no objective reality

7 KANT'S NOTE. Thinking is taken in the two premises in entirely different meanings: in the major premise, as it applies to an object in general (and hence as that object may be given in intuition); in the minor premise, only as it consists in relation to self-consciousness, where no object at all is thought, but only the relation to oneself as subject (as the form of thought) is represented. In the first, things are spoken of that cannot be thought otherwise than as subjects; in the second, however, not *things* but *thinking* (abstracting from every object), in which the I always serves as the subject of consciousness. Hence the conclusion cannot be "I cannot exist otherwise than as subject," but only "In thinking my existence, I can use myself only as the subject of the judgment." This is an identical proposition, which discloses absolutely nothing about the mode of my existence.

8 *Per sophisma figurae dictionis* (Latin): "by the sophism of a figure of speech," the fallacy of taking the middle term in different senses in the two premises.

whatever; that is, one cannot know whether any object at all can correspond to it, since one has no insight into the possibility of such a mode of existing; and consequently that it yields absolutely no cognition. If, then, under the name of a substance, this concept is to indicate an object that can be given—if it is to become a cognition—then a persistent intuition must be laid at its basis, as the indispensable condition of the objective reality of a concept, namely that through which alone the object is given. But in inner intuition we have nothing persistent at all, for the I is only the consciousness of my thinking. So if we stop at mere thinking, we also lack the necessary condition for applying the concept of substance, that is, of a subject subsisting by itself, to oneself as a thinking being. And the simplicity of substance bound up with it drops away entirely along with this concept's objective reality, and is transformed into a merely logical, qualitative unity of self-consciousness in thinking in general, whether the subject be composite or not.

REFUTATION OF MENDELSSOHN'S PROOF OF THE PERSISTENCE OF THE SOUL

A simple soul could still fade away by degrees, so its persistence remains unproven.

This acute philosopher soon noticed that the usual argument meant to prove that the soul (if one grants that it is a simple being) cannot cease to be through *division* fell short of the purpose of securing its necessary continuance, since one could still assume that its existence ceased [271] through *vanishing*.[9] In his *Phaedon* he therefore sought to keep this transitoriness, which would be a true annihilation, away from the soul, venturing to prove that a simple being cannot cease to be at all. For since it cannot be diminished, and so cannot gradually lose something of its existence and thus be turned little by little into nothing (having no parts, and hence no plurality within it), there would

9 Moses Mendelssohn (1729–1786), named in the section title; his dialogue *Phaedon, or On the Immortality of the Soul* (1767) recast Plato's *Phaedo*.

be no time at all between a moment in which it is and another in which it no longer is—which is impossible. —But he did not consider that, even if we grant the soul this simple nature—namely, that it contains no manifold *outside one another*, and hence no extensive magnitude—one still cannot deny it, any more than anything else that exists, intensive magnitude: that is, a degree of reality with respect to all its faculties, indeed with respect to everything that constitutes its existence. This degree could diminish through all the infinitely many smaller degrees, and so the supposed substance (the thing whose persistence is not already otherwise established) could be turned into nothing—not by division, to be sure, but by a gradual slackening (*remissio*) of its powers (and hence by elanguescence, if I may be permitted to use this expression).[10] For even consciousness always has a degree that can still be diminished[11], and consequently so does the faculty of being conscious of oneself, and likewise all the other faculties. —Thus the persistence of the soul, merely as an object of inner sense, remains unproven and even unprovable. Its persistence in life is of course clear by itself, since the thinking being (as a human being) is at the same time an object of the outer senses; but this by no means satisfies the rational psycho-

10 *Remissio* (Latin): "slackening." "Elanguescence" is Kant's coinage from Latin *elanguescere*, "to grow faint."

11 KANT'S NOTE. Clarity is not, as the logicians say, the consciousness of a representation. For a certain degree of consciousness, though not enough for recollection, must be found even in many obscure representations; without any consciousness at all we would make no distinction in the combination of obscure representations, which we are nonetheless able to do with the marks of many concepts (such as those of right and equity, or those of the musician who strikes many notes at once while improvising). Rather, a representation is clear when the consciousness in it is sufficient for *consciousness of the difference* between it and others. If the consciousness suffices for distinguishing, but not for consciousness of the difference, the representation would still have to be called obscure. There are therefore infinitely many degrees of consciousness, down to its vanishing.

logist, [272] who undertakes to prove from mere concepts the absolute persistence of the soul even beyond life[12].

Now suppose we take our propositions above in *synthetic* connection, as they must be taken in rational psychology as a system, valid for all thinking beings; and suppose we start from the [273] category of relation, with the proposition "All thinking beings

12 KANT'S NOTE. Those who, in order to launch a new possibility, think they have done enough if they defiantly insist that no one can show them a contradiction in their presuppositions—as do all those who believe they have insight into the possibility of thinking even after life has ceased, though they have an example of thinking only in empirical intuitions during human life—can be thrown into great embarrassment by other possibilities that are not in the least bolder. Such is the possibility of the division of a *simple substance* into several substances, and conversely the flowing together (coalition) of several into one simple substance. For although divisibility presupposes a composite, it does not necessarily require a composite of substances, but merely one of degrees (of the various faculties) of one and the same substance. Now just as one can think all the powers and faculties of the soul, even that of consciousness, as having dwindled by half, yet in such a way that substance would still remain, so one can also represent without contradiction that this extinguished half has been preserved—not in the soul, but outside it. And since here everything in the soul that is ever real, and so has a degree—hence its entire existence, so that nothing is lacking—has been halved, a separate substance would then arise outside it. For the plurality that has been divided already existed beforehand—not as a plurality of substances, but as a plurality of every reality, as a quantum of existence in it; and the unity of the substance was only a mode of existing, which through this division alone has been transformed into a plurality of subsistence. But in the same way several simple substances could in turn flow together into one, and nothing would be lost but the plurality of subsistence, since the one would contain within itself the degree of reality of all the former ones together. And perhaps the simple substances that give us the appearance of a matter (not, of course, through a mechanical or chemical influence on one another, but through one unknown to us, of which the former would be only the appearance) might produce children's souls through such a *dynamic* division of the parents' souls, as *intensive magnitudes*, while the parents' souls made good their loss by coalition with new material of the same kind. I am far from granting the least value or validity to such figments of the brain; and the principles of the Analytic above have sufficiently impressed on us that we should make no use of the categories (such as that of substance) other than in experience. But suppose the rationalist is bold enough to make a self-subsisting being out of the mere faculty of thought, without any persistent intuition through which an object would be given, merely because the unity of apperception in thought permits him no explanation from the composite—when he would do better to admit that he does not know how to explain the possibility of a thinking nature. Why, then, should the *materialist*, though he can cite experience just as little on behalf of his possibilities, not be entitled to the same boldness, and use his principle for the opposite purpose while retaining the formal unity that the rationalist relies on?

are, as such, substances," and go backward through their series until the circle closes. Then we finally come upon the existence of these beings. In this system they are not only conscious of their existence independently of external things, but can also determine it from themselves (with respect to the persistence that necessarily belongs to the character of substance). From this it follows, however, that *idealism* is unavoidable in this same rationalistic system—at least problematic idealism. And if the existence of external things is not at all required for determining one's own existence in time, then that existence of external things is also assumed quite gratuitously, without its ever being possible to give a proof of it.

If, on the other hand, we follow the *analytic* procedure—where "I think," as a proposition that already includes an existence within itself, is taken as given, and so modality lies at the basis—and if we analyze this proposition in order to cognize its content, namely whether and how this I determines its existence in space or time merely through it, then the propositions of the rational doctrine of the soul would begin not from the concept of a thinking being in general but from an actuality. From the way this actuality is thought, after everything empirical in it has been removed, what belongs to a thinking being in general would be inferred, as the following table shows.

1. *I think*, 2. *as subject*, 3. *as simple subject*, 4. *as identical subject*, in every state of my thinking.

[274] Now since the second proposition does not determine whether I *can* exist and be thought only as subject and not also as the predicate of another, the concept of a subject is taken here merely logically, and it remains undetermined whether substance is to be understood by it or not. In the third proposition, however, the absolute unity of apperception, the simple I, in the representation to which all combination or separation that constitutes thinking refers, becomes important in its own right, even if I have as yet settled nothing about the subject's constitution or subsistence. Apperception is something real, and its simplicity lies already in its possibility. Now there is nothing

real in space that would be simple; for points (which are the only simple things in space) are mere boundaries, not themselves something that serves as a part to make up space. It follows from this that it is impossible to explain my constitution, as a merely thinking subject, on the grounds of *materialism*. But because my existence is regarded as given in the first proposition—for it does not say "Every thinking being exists" (which would at the same time assert absolute necessity of them, and so say too much), but only "*I exist* thinking"—that proposition is empirical, and contains the determinability of my existence merely with respect to my representations in time. But since for this I again need first of all something persistent, and nothing of the kind is given to me in inner intuition insofar as I think myself, it is not at all possible to determine, through this simple self-consciousness, the way in which I exist—whether as substance or as accident. So if *materialism* is unfit as a way of explaining my existence, *spiritualism* is just as insufficient for it; and the conclusion is that we can in no way whatever cognize anything of the constitution of our soul as far as the possibility of its separate existence in general is concerned.

And how indeed should it be possible, through the unity of consciousness—which we ourselves know only because we must use it as indispensable for the possibility of experience—to get beyond experience (our existence in life), and even to extend our cognition to the nature of all thinking beings in general through the empirical proposition "I think," which is undetermined with respect to every kind of intuition?

There is therefore no rational psychology as *doctrine* that could provide any addition to our self-cognition, but only as [275]
discipline. As such it sets impassable boundaries for speculative reason in this field: on the one hand, so that reason does not throw itself into the lap of soulless materialism; on the other, so that it does not lose itself roving fanatically in a spiritualism that, for us in life, is groundless. Rather, it reminds us to regard this refusal of our reason to give satisfying answers to curious questions that reach beyond this life as a hint from reason to

turn our self-cognition away from fruitless, extravagant speculation toward fruitful practical use. This practical use, even if it is always directed only to objects of experience, nevertheless takes its principles from higher up, and determines our conduct as if our vocation reached infinitely far beyond experience, and hence beyond this life.

From all this one sees that rational psychology owes its origin to a mere misunderstanding. The unity of consciousness that underlies the categories is here taken for an intuition of the subject as object, and the category of substance is applied to it. But this unity is only unity in *thinking*, through which alone no object is given; to it, therefore, the category of substance, which always presupposes a given *intuition*, cannot be applied, and hence this subject cannot be cognized at all. The subject of the categories, therefore, cannot obtain a concept of itself as an object of the categories by thinking them; for in order to think them it must lay at their basis its pure self-consciousness—the very thing that was to be explained. In the same way, the subject in which the representation of time originally has its ground cannot thereby determine its own existence in time. And if the latter cannot be, then the former, as a determination of itself (as

a thinking being in general) through categories, cannot take place either.[13]

So a cognition that is attempted beyond the boundaries of possible experience, and yet belongs to the highest interest of humanity, vanishes into disappointed expectation, insofar as it is supposed to be [276] owed to speculative philosophy. Yet here the strictness of critique, by proving at the same time the impossibility of settling anything dogmatically about an object of experience beyond the boundary of experience, does reason a service in this interest that is not unimportant to it: it secures reason just as well against all possible assertions of the opposite. This can be done only in one of two ways: either one proves one's proposition apodictically, or, if that does not succeed, one seeks out the sources of this inability; and if these lie in the necessary limits of our reason, they must then subject every opponent to precisely the same law of renouncing all claims to dogmatic assertion.

Nevertheless, nothing whatever is lost thereby for the right—indeed the necessity—of assuming a future life according to

principles of the practical use of reason, which is bound up with its speculative use. For the merely speculative proof has never been able to have any influence on common human reason anyway. It is balanced on the point of a hair, so that even the schools can keep it [277] there only so long as they keep it spinning ceaselessly about that point like a top; and so even in their own eyes it provides no persistent foundation on which anything could be built. The proofs that are useful for the world at large all keep their undiminished value here, and indeed gain in clarity and unforced conviction by the removal of those dogmatic pretensions. For they place reason in its own proper domain, namely the order of ends, which is yet at the same time an order of nature. But reason, as a practical faculty in itself, without being limited to the conditions of the latter order, is at the same time entitled to extend the former, and with it our own existence, beyond the boundaries of experience and of life. To judge by *analogy with the nature* of living beings in this world—in whom reason must necessarily adopt as a principle that no organ, no

13 KANT'S NOTE. The "I think" is, as already said, an empirical proposition, and contains within itself the proposition "I exist." But I cannot say "Everything that thinks exists"; for then the property of thinking would make all beings that possess it necessary beings. Hence my existence cannot be regarded as inferred from the proposition "I think," as Descartes held (for otherwise the major premise "Everything that thinks exists" would have to precede it); rather, it is identical with it. The proposition expresses an indeterminate empirical intuition, that is, perception (and so it does prove that sensation, which consequently belongs to sensibility, already underlies this existential proposition); but it precedes the experience that is to determine the object of perception through the category with respect to time. And existence here is not yet a category; for a category relates not to an indeterminately given object, but only to one of which we have a concept, and about which we want to know whether it is also posited outside this concept or not. An indeterminate perception here signifies only something real that has been given, and given only for thinking in general—hence not as appearance, nor as a thing in itself (noumenon), but as something that actually exists and is designated as such in the proposition "I think." For it should be noted that when I have called the proposition "I think" an empirical proposition, I do not mean by this that the *I* in this proposition is an empirical representation; on the contrary, it is purely intellectual, because it belongs to thinking in general. But without some empirical representation that supplies the material for thinking, the act "I think" would still not take place; and the empirical is only the condition of the application, or use, of the pure intellectual faculty.

faculty, no impulse is to be found that is dispensable or disproportionate to its use, and hence purposeless, but that everything is exactly suited to its vocation in life—the human being, who alone can contain within himself the final end of all this, would have to be the only creature exempted from it. For his natural predispositions—not merely the talents and the impulses to make use of them, but above all the moral law within him—go so far beyond all the utility and advantage he could draw from them in this life that the moral law teaches him to prize above everything the mere consciousness of an upright disposition, even in the absence of all advantages, even of the shadowy play of posthumous fame. And he feels inwardly called, by his conduct in this world and by renouncing many advantages, to make himself fit to be a citizen of a better world, which he has in the idea. This powerful argument, which can never be refuted, is accompanied by an ever-growing cognition of purposiveness in everything we see before us, by a view into the immensity of creation, and hence also by the consciousness of a certain unboundedness in the possible extension of our knowledge, together with a drive commensurate with it. It still remains, even if we must give up the hope of seeing the necessary continuance of our existence from merely theoretical cognition of ourselves.

CONCLUSION OF THE SOLUTION OF THE PSYCHOLOGICAL PARALOGISM

The illusion arises from confusing an idea of reason with the concept of a thinking being in general.

278 The dialectical illusion in rational psychology rests on the confusion of an idea of reason (a pure intelligence) with the concept, in every respect undetermined, of a thinking being in general. I think myself for the sake of a possible experience, while still abstracting from all actual experience; and from this I infer that I could become conscious of my existence even outside experience and its empirical conditions. Consequently I confuse the possible *abstraction* from my empirically determ-

ined existence with the supposed consciousness of a *separately* possible existence of my thinking self; and I believe that I *cognize* what is substantial in me as the transcendental subject, when all I have in mind is the unity of consciousness, which underlies all determining as the mere form of cognition.

The task of explaining the community of the soul with the body does not properly belong to the psychology under discussion here. For that psychology aims to prove the personality of the soul even outside this community (after death), and is therefore *transcendent* in the proper sense, even though it concerns itself with an object of experience—but only insofar as it ceases to be an object of experience. Nevertheless, our doctrine can give a sufficient answer to this question too. The difficulty that has given rise to this task consists, as is well known, in the presupposed heterogeneity of the object of inner sense (the soul) and the objects of the outer senses: to the former only time attaches as the formal condition of its intuition, to the latter space as well. But if one considers that the two kinds of objects differ from each other here not inwardly, but only insofar as one *appears* outwardly to the other, and hence that what underlies the appearance of matter, as thing in itself, might perhaps not be so heterogeneous after all, then this difficulty vanishes. The only one left is how a community of substances is possible at all. To solve this lies entirely outside the field of psychology and, as the reader will easily judge from what was said in the Analytic about fundamental powers and faculties, beyond all doubt also outside the field of all human cognition.

GENERAL REMARK ON THE TRANSITION FROM RATIONAL PSYCHOLOGY TO COSMOLOGY

"I think" is an empirical proposition, yet mere thinking does not present the subject as appearance.

[279] The proposition "I think," or "I exist thinking," is an empirical proposition. But such a proposition is based on empirical intuition, and hence also on the object thought, as appearance. So it seems as if, on our theory, the soul would be entirely trans-

formed into appearance, even in thinking; and in this way our consciousness itself, as mere illusion, would in fact have to refer to nothing.

Thinking, taken by itself, is merely the logical function, and hence the sheer spontaneity of combining the manifold of a merely possible intuition. It in no way presents the subject of consciousness as appearance, simply because it takes no account whatever of the kind of intuition, whether sensible or intellectual. Through it I represent myself to myself neither as I am nor as I appear to myself; rather, I think myself only as I think any object in general, from whose kind of intuition I abstract. When I represent myself here as *subject* of thoughts, or also as *ground* of thinking, these ways of representing do not signify the categories of substance or of cause. For the categories are those functions of thinking (judging) already applied to our sensible intuition, which would of course be required if I wanted to *cognize* myself. Now, however, I want to become conscious of myself only as thinking. How my own self is given in intuition I set aside; and there it could be mere appearance to me who thinks—but not insofar as I think. In the consciousness of myself in mere thinking I am the *being itself*, though of course nothing of this being is thereby yet given to me for thinking.

The proposition "I think," however, insofar as it amounts to saying *I exist thinking*, is not a mere logical function; it determines the subject (which is then at the same time object) with respect to existence, and cannot take place without inner sense, whose intuition always presents the object not as thing in itself but merely as appearance. In it, therefore, there is already no longer mere spontaneity of thinking, but also receptivity of intuition, that is, the thinking of myself applied to the empirical intuition of that very same subject. [280] In this latter intuition, then, the thinking self would have to look for the conditions of the use of its logical functions as categories of substance, cause, etc., so as not merely to designate itself, as object in itself, through the I, but also to determine the mode of its existence, that is, to cognize itself as noumenon. But this is impossible,

since inner empirical intuition is sensible and provides nothing but data of appearance, which furnish nothing to the object of *pure consciousness* for knowledge of its separate existence, but can serve only for the purposes of experience.

Suppose, however, that later on an occasion were found—not in experience, but in certain laws of the pure use of reason (not merely logical rules) that are firmly established *a priori* and concern our existence—for presupposing ourselves, completely *a priori*, as *legislative* with respect to our own *existence*, and as determining this existence itself. Then a spontaneity would thereby be revealed through which our actuality would be determinable without needing the conditions of empirical intuition. And here we would become aware that in the consciousness of our existence something is contained *a priori* that can serve to determine our existence—which is otherwise thoroughly determinable only sensibly—with respect to a certain inner faculty, in relation to an intelligible world (one that is, of course, only thought).

But this would nonetheless not advance any of the attempts of rational psychology in the least. For through that admirable faculty which the consciousness of the moral law first reveals to me, I would indeed have a principle for determining my existence that is purely intellectual—but through which predicates? Through none other than those that must be given to me in sensible intuition. And so I would end up again where I was in rational psychology, namely in need of sensible intuitions in order to provide meaning for my concepts of the understanding —substance, cause, and so on—through which alone I can have cognition of myself; but those intuitions can never help me beyond the field of experience. Nevertheless, with respect to practical use, which is always directed to objects of experience, I would be entitled to apply these concepts to freedom and its subject, in accordance with a meaning analogous to the one they have in theoretical use. For by them I understand merely the logical functions of subject [281] and predicate, of ground and consequence, in accordance with which actions or effects are so

determined according to those laws that they can always be explained, together with the laws of nature, in accordance with the categories of substance and cause, even though they arise from an entirely different principle. This has been said only to prevent the misunderstanding to which the doctrine of our self-intuition as appearance is easily exposed. In what follows there will be occasion to make use of it.

The Antinomy of Pure Reason

Four pairs of opposite proofs about the world as a whole, and their resolution.

In the Introduction to this part of our work we showed that all transcendental illusion of pure reason rests on dialectical inferences, whose schema logic supplies in the three formal kinds of syllogism in general—much as the categories find their logical schema in the four functions of all judgments. The *first kind* of these sophistical inferences concerned the unconditioned unity of the *subjective* conditions of all representations in general (of the subject or the soul), in correspondence with the *categorical* syllogisms, whose major premise, as principle, asserts the relation of a predicate to a *subject*. The *second kind* of dialectical argument will therefore, by analogy with *hypothetical* syllogisms, take as its content the unconditioned unity of the objective conditions in appearance; just as the *third kind*, which will come up in the following chapter, has as its theme the unconditioned unity of the objective conditions of the possibility of objects in general.

It is remarkable, however, that the transcendental paralogism produced a merely one-sided illusion with regard to the idea of the subject of our thinking, and that not the slightest illusion from concepts of reason can be found in support of the opposite assertion. The advantage lies [282] entirely on the side of pneumatism—although, for all the illusion in its favor, pneumatism

cannot deny its hereditary defect of dissolving into mere vapor in the fiery ordeal of critique.[1]

It turns out quite differently when we apply reason to the *objective synthesis* of appearances. Here reason does think to assert its principle of unconditioned unity, and with a good deal of illusion; but it soon becomes entangled in such contradictions that it is compelled to abandon its demand in the cosmological respect.

For here a new phenomenon of human reason shows itself: a wholly natural antithetic, which no one needs to brood over or artfully lay snares for, but into which reason falls of itself, and indeed unavoidably. Reason is thereby guarded against the slumber of an imagined conviction, such as a merely one-sided illusion produces; but at the same time it is tempted either to abandon itself to skeptical hopelessness, or to adopt a dogmatic defiance and stubbornly insist on certain assertions without giving a hearing and doing justice to the grounds for the opposite. Either is the death of sound philosophy, although the former might at least be called the *euthanasia* of pure reason.[2]

Before we display the scenes of discord and disorder that this conflict of laws (antinomy) of pure reason occasions, we shall give certain explanations that can clarify and justify the method we use in treating our subject.[3] I call all transcendental ideas, insofar as they concern absolute totality in the synthesis of appearances, *world-concepts*. I do so partly because of this very unconditioned totality, on which the concept of the world-whole also rests—itself only an idea—and partly because they bear solely on the synthesis of appearances, and hence on empirical synthesis. By contrast, absolute totality in the synthesis of the conditions of all possible things in general will give rise to an ideal of pure reason, which is entirely distinct from the world-

1 Pneumatism: the doctrine that the soul is a spiritual (immaterial) being, as opposed to materialism.

2 Antithetic: Kant's term for a conflict between propositions that each appear dogmatically established; he defines it in the next section.

3 Antinomy: from the Greek for "against" and "law"—hence Kant's gloss, "conflict of laws."

concept, although it stands in relation to it.[4] Hence, just as the paralogisms of pure reason laid the basis for a dialectical psychology, so the antinomy of pure reason will set before our eyes the transcendental principles of a supposed pure (rational) cosmology—not in order to find them valid and appropriate them, but, as [283] the very name of a conflict of reason already indicates, in order to display them as an idea that cannot be reconciled with appearances, in their dazzling but false illusion.

SECTION 1. SYSTEM OF THE COSMOLOGICAL IDEAS

Kant derives exactly four cosmological ideas from the categories that yield a regressive series of conditions.

Now, in order to be able to enumerate these ideas with systematic precision according to a principle, we must note, *first*, that it is only the understanding from which pure and transcendental concepts can arise. Reason really produces no concept at all; at most it *frees* the *concept of the understanding* from the unavoidable limitations of a possible experience, and so seeks to extend it beyond the boundaries of the empirical, though still in connection with it. It does this by demanding absolute totality on the side of the conditions for a given conditioned (conditions under which the understanding subjects all appearances to synthetic unity). It thereby makes the category into a transcendental idea, in order to give absolute completeness to the empirical synthesis by continuing it up to the unconditioned (which is never met with in experience, but only in the idea). Reason demands this according to the principle: *if the conditioned is given, then the whole sum of conditions, and hence the absolutely unconditioned, is also given,* through which alone the conditioned was possible. So, *first*, the transcendental ideas will really be nothing but categories extended to the unconditioned, and they can be brought into a table arranged according to the headings

4 *Weltbegriffe*: "world-concepts," concepts of the world as a whole (often rendered "cosmological concepts"). In the Architectonic Kant uses the word in another sense, rendered there "cosmic concept."

of the categories. *Second*, however, not all categories will be suited to this, but only those in which the synthesis constitutes a *series*—and indeed a series of conditions for a conditioned that are subordinated to one another (not coordinated). Absolute totality is demanded by reason only insofar as it concerns the ascending series of conditions for a given conditioned; hence not when the talk is of the descending line of consequences, nor of the aggregate of coordinated conditions for [284] these consequences. For with respect to the given conditioned, conditions are already presupposed, and are to be regarded as given along with it. Consequences, on the other hand, do not make their conditions possible but rather presuppose them. So in advancing to the consequences (or in descending from the given condition to the conditioned) one can be unconcerned whether the series comes to an end or not; and the question of its totality is in general no presupposition of reason at all.

Thus we necessarily think of a time that has fully elapsed up to the given moment as also given (even if it is not determinable by us). But as for future time, since it is not the condition for arriving at the present, it is a matter of complete indifference, for comprehending the present, how we choose to treat future time—whether we let it stop somewhere or run on to infinity. Let there be the series m, n, o, in which n is given as conditioned with respect to m but at the same time as condition of o. Let the series go upward from the conditioned n to m (l, k, i, etc.), and likewise downward from the condition n to the conditioned o (p, q, r, etc.). Then I must presuppose the first series in order to regard n as given; and according to reason (the totality of conditions), n is possible only by means of that series. Its possibility does not, however, rest on the subsequent series o, p, q, r, which therefore could not be regarded as given either, but only as *dabilis*.[5]

The synthesis of a series on the side of the conditions—that is, starting from the condition nearest to the given appearance and going on to the more remote conditions—I will call the *regressive*

5 *Dabilis* (Latin): "capable of being given."

synthesis; the synthesis that proceeds on the side of the conditioned, from the nearest consequence to the more remote ones, I will call the *progressive* synthesis. The first goes *in antecedentia*, the second *in consequentia*. The cosmological ideas, then, are concerned with the totality of the regressive synthesis and go *in antecedentia*, not *in consequentia*. When the latter happens, it is an arbitrary and not a necessary problem of pure reason, because to comprehend completely what is given in appearance we need its grounds, but not its consequences.[6]

Now, in order to set up the table of ideas following the table of categories, we first take the two original *quanta* of all our intuition, time and space. Time is in itself a series (and the formal condition of all series). Hence in time, with respect to a given present, the *antecedentia*, as conditions (the past), are to be distinguished *a priori* [285] from the *consequentia* (the future). Consequently, the transcendental idea of the absolute totality of the series of conditions for a given conditioned concerns only all past time. According to the idea of reason, the whole of elapsed time, as the condition of the given moment, is necessarily thought as given.[7] As for space, however, there is in itself no difference in it between progress and regress, because it constitutes an *aggregate* but *no series*, its parts all existing at the same time. I could regard the present point of time only as conditioned with respect to past time, never as its condition, because this moment first arises only through the time that has elapsed (or rather through the elapsing of the preceding time). But since the parts of space are not subordinated to one another but coordinated, one part is not the condition of the possibility of another, and space does not, as time does, constitute a series in itself. Yet the synthesis of the manifold parts of space, through which we apprehend it, is nonetheless successive; it therefore takes place in time and contains a series. And since in this series of aggregated spaces (for example, the feet in a rod), those fur-

6 *In antecedentia* / *in consequentia* (Latin): "toward what goes before" / "toward what follows."

7 *Quanta* (Latin): quantities, magnitudes.

ther spaces that are thought in addition to a given one are always the *condition of the boundary* of the previous ones, the *measuring* of a space is also to be regarded as a synthesis of a series of conditions for a given conditioned. The only difference is that the side of the conditions is not in itself distinct from the side on which the conditioned lies, so that *regressus* and *progressus* seem to be the same in space.[8] Since, however, one part of space is not given through another but only bounded by it, we must to that extent regard every bounded space as also conditioned, in that it presupposes another space as the condition of its boundary, and so on. With regard to bounding, then, the advance in space is also a regress, and the transcendental idea of the absolute totality of the synthesis in the series of conditions applies to space as well. I can ask about the absolute totality of appearance in space just as well as about that in elapsed time. Whether any answer to this question is possible at all will be determined later.

Second, reality in space—that is, *matter*—is a conditioned, whose inner conditions are its parts, and the parts of the parts its remote conditions. So here a regressive synthesis [286] takes place, whose absolute totality reason demands. This totality can take place only through a completed division, whereby the reality of matter vanishes either into nothing or at least into what is no longer matter, namely the simple. Consequently, here too there is a series of conditions and a progress to the unconditioned.

Third, as for the categories of real relation among appearances, the category of substance with its accidents is not suited to a transcendental idea; that is, reason has no ground to go regressively to conditions with regard to it. For accidents (insofar as they inhere in one and the same substance) are coordinated with one another and do not constitute a series. And with respect to substance they are not really subordinated to it; they are the substance's own way of existing. What might still seem to be an idea of transcendental reason here would be the

8 A rod (*Rute*) was an old unit of length, commonly twelve or sixteen feet.

concept of the *substantial*. But this means nothing other than the concept of an object in general that subsists, insofar as one thinks in it merely the transcendental subject without any predicates; whereas here we are speaking only of the unconditioned in the series of appearances. So it is clear that the substantial cannot constitute a member of that series. The same holds of substances in community, which are mere aggregates and have no exponent of a series, since they are not subordinated to one another as conditions of their possibility. This much could indeed be said of spaces, whose boundary was never determined in itself but always through another space.[9] There remains, then, only the category of *causality*, which offers a series of causes for a given effect. In it one can ascend from the effect, as the conditioned, to the causes, as conditions, and so answer reason's question.

Fourth, the concepts of the possible, the actual, and the necessary lead to no series—except insofar as the *contingent* in existence must always be regarded as conditioned and, according to the rule of the understanding, points to a condition under which it is necessary; and this condition in turn points to a higher condition, until reason meets with unconditioned *necessity* only in the totality of this series.

There are accordingly no more than four cosmological ideas, following the four headings of the categories, if we pick out those categories that necessarily carry a series with them in the synthesis of the manifold.

[287] 1. The absolute completeness of the *composition* of the given whole of all appearances.

2. The absolute completeness of the *division* of a given whole in appearance.

3. The absolute completeness of the *origination* of an appearance in general.

4. The absolute completeness of the *dependence* of the *existence* of what is alterable in appearance.

9 Exponent: here, the rule or relation by which the members of a series follow one another.

The first thing to note here is that the idea of absolute totality concerns nothing but the exposition of *appearances*, and hence not the pure concept of the understanding of a whole of things in general. Appearances are here regarded as given, and reason demands the absolute completeness of the conditions of their possibility, insofar as these constitute a series—hence an absolutely (that is, in every respect) complete synthesis, through which the appearance could be expounded according to laws of the understanding.

Second, it is really only the unconditioned that reason seeks in this synthesis of conditions, continued serially and indeed regressively: completeness, as it were, in the series of premises that together presuppose no further one. Now this *unconditioned* is always contained *in the absolute totality of the series*, when one represents that totality in imagination. But this absolutely completed synthesis is in turn only an idea; for one cannot know, at least in advance, whether such a synthesis is possible in the case of appearances. If one represents everything through mere pure concepts of the understanding, without conditions of sensible intuition, one can say straightforwardly that for a given conditioned the whole series of conditions subordinated to one another is also given; for the conditioned is given only through this series. [288] With appearances, however, we find a particular limitation of the way in which conditions are given: namely, through the successive synthesis of the manifold of intuition, which is supposed to be complete in the regress. Whether this completeness is sensibly possible is still a problem. But the idea of this completeness nonetheless lies in reason, regardless of whether it is possible or impossible to connect empirical concepts adequately with it. Since, then, the unconditioned is necessarily contained in the absolute totality of the regressive synthesis of the manifold in appearance (guided by the categories, which represent it as a series of conditions for a given conditioned)—whatever we may leave undecided about whether and how this totality can be brought about—reason here takes the path of starting from the idea of totality, although its real final

aim is the *unconditioned*, whether of the whole series or of a part of it.

This unconditioned can now be conceived in one of two ways. Either it consists merely in the whole series, in which all members without exception would be conditioned and only the whole of them absolutely unconditioned—and then the regress is called infinite. Or the absolutely unconditioned is only a part of the series, to which the remaining members are subordinated but which itself stands under no other condition.[10] In the first case the series is without bounds *a parte priori* (without beginning), that is, infinite, and yet wholly given; but the regress in it is never completed, and can be called infinite only *potentialiter*.[11] In the second case there is a first member of the series. With respect to elapsed time it is called the *beginning of the world*; with respect to space, the *boundary of the world*; with respect to the parts of a whole given within its bounds, the *simple*; with respect to causes, absolute *self-activity* (freedom); and with respect to the existence of alterable things, absolute *natural necessity*.

We have two expressions, *world* and *nature*, which sometimes run into each other. The first signifies the mathematical whole of all appearances [289] and the totality of their synthesis, in the large as well as in the small—that is, in its progress through composition as well as through division. But this same world is

10 KANT'S NOTE. The absolute whole of the series of conditions for a given conditioned is always unconditioned, because outside it there are no further conditions with respect to which it could be conditioned. But this absolute whole of such a series is only an idea, or rather a problematic concept, whose possibility must be investigated—specifically with regard to the way in which the unconditioned, as the real transcendental idea at issue, may be contained in it.

11 *A parte priori* (Latin): "on the side of what comes before." *Potentialiter*: "potentially."

called nature[12] insofar as it is regarded as a dynamical whole, and one looks not at aggregation in space or time, so as to bring it about as a magnitude, but at the unity in the *existence* of appearances. Here the condition of what happens is called the cause; the unconditioned causality of the cause in appearance is called freedom, whereas the conditioned causality is called, in the narrower sense, natural cause. The conditioned in existence in general is called contingent, and the unconditioned necessary. The unconditioned necessity of *appearances* can be called natural necessity.

The ideas with which we are now concerned I called cosmological ideas above. This is partly because by "world" is understood the sum total of all appearances, and our ideas, too, are directed only at the unconditioned among appearances; and partly because the word "world," in the transcendental sense, signifies the absolute totality of the sum total of existing things, and we direct our attention solely to the completeness of the synthesis (although really only in the regress to the conditions). Considering, moreover, that these ideas are all transcendent—that although they do not overstep the object, namely appearances, *in kind*, but have to do solely with the sensible world (not with *noumena*), they nonetheless drive the synthesis to a *degree* that exceeds all possible experience—they can all, in my opinion, quite fittingly be called *world-concepts*. With regard to the distinction between the mathematically and the dynamically unconditioned at which the regress aims, however, I would call the first two world-concepts in the narrower sense (of the world in the large and in the small), and the remaining two *transcendent concepts of nature*. [290] This distinction is not yet of any special

12 KANT'S NOTE. Nature taken *adjectivally (formaliter)* means the interconnection of the determinations of a thing according to an inner principle of causality. By nature taken *substantively (materialiter)*, by contrast, one understands the sum total of appearances, insofar as these thoroughly hang together by virtue of an inner principle of causality. In the first sense one speaks of the nature of fluid matter, of fire, and so on, and uses the word only *adjectivally*; whereas when one speaks of the things of nature, one has in mind a whole that subsists.

TRANSLATOR'S NOTE. *Formaliter* / *materialiter* (Latin): "formally" / "materially."

importance for now, but it may become more important as we proceed.

SECTION 2. THE ANTITHETIC OF PURE REASON

Kant defines the antithetic and distinguishes his skeptical method, which seeks certainty, from skepticism.

If "thetic" is any sum total of dogmatic doctrines, then by "antithetic" I understand not dogmatic assertions of the opposite, but the conflict between cognitions that are dogmatic in appearance (*thesin cum antithesi*), without ascribing to one a superior claim to assent over the other. The antithetic, then, is not concerned at all with one-sided assertions; it considers universal cognitions of reason only in terms of their conflict with one another and the causes of that conflict. Transcendental antithetic is an investigation into the antinomy of pure reason, its causes, and its result.[13] If we employ our reason not merely in using the principles of the understanding on objects of experience, but venture to extend those principles beyond the boundary of experience, there arise *sophistical* propositions. These may neither hope for confirmation in experience nor fear refutation by it. Each of them is not only free of contradiction in itself but even finds conditions of its necessity in the nature of reason—only, unfortunately, the counter-proposition has on its side grounds for its assertion that are just as valid and necessary.

The questions that naturally present themselves in such a dialectic of pure reason are therefore: 1. In which propositions, exactly, is pure reason inevitably subject to an antinomy? 2. On what causes does this antinomy rest? 3. Whether, and in what way, a path to certainty nonetheless remains open to reason in the face of this contradiction.

A dialectical proposition of pure reason must accordingly have this feature, which distinguishes it from all sophistical propositions: it concerns not an arbitrary question, raised only for some chosen [291] purpose, but one that every human reason must

13 *Thesin cum antithesi* (Latin): "thesis with antithesis."

necessarily run up against in its progress. And second, it and its counter-proposition carry with them not merely an artificial illusion, which vanishes as soon as one sees through it, but a natural and unavoidable illusion—one that, even when one is no longer taken in by it, still deludes, though it does not deceive, and so can indeed be rendered harmless but can never be eradicated.

Such a dialectical doctrine will relate not to the unity of the understanding in concepts of experience, but to the unity of reason in mere ideas. The synthesis in question is supposed, first, as a synthesis according to rules, to be congruent with the understanding, and yet at the same time, as the absolute unity of that synthesis, to be congruent with reason. So its conditions, if the synthesis is adequate to the unity of reason, will be too large for the understanding, and if it is suited to the understanding, too small for reason. From this a conflict must arise that cannot be avoided, however one sets about it.

These sophistical assertions thus open up a dialectical battlefield, where whichever side is permitted to make the attack keeps the upper hand, and whichever is forced to proceed merely defensively is sure to succumb. That is why vigorous knights, whether they champion the good cause or the bad, are sure to carry off the victor's wreath, if only they take care to have the privilege of making the last attack and are not obliged to withstand a fresh assault from their opponent. One can easily imagine that this arena has been entered often enough from time immemorial, that many victories have been won on both sides, but that for the last one, which decided the matter, care was always taken that the champion of the good cause kept the field alone—by forbidding his opponent to take up arms any further. As impartial referees, we must set entirely aside whether it is the good or the bad cause for which the combatants are fighting, and let them first settle the matter among themselves. Perhaps, after they have tired each other out more than they have harmed each other, they will see for themselves the futility of their quarrel and part as good friends.

This method of watching a conflict of assertions—or [292] rather of provoking one—not in order finally to decide in favor of one side or the other, but in order to investigate whether its object is perhaps a mere deception, which each grasps at in vain and by which he could gain nothing even if he met no resistance at all: this procedure, I say, can be called the *skeptical method*. It is entirely different from *skepticism*, a principle of technical and scientific ignorance, which undermines the foundations of all cognition in order, if possible, to leave no reliability or certainty in it anywhere. For the skeptical method aims at certainty. In a conflict of this kind, honestly meant and conducted with understanding on both sides, it seeks to discover the point of misunderstanding—just as wise legislators, from the perplexity of judges in lawsuits, draw instruction for themselves about what is defective and not precisely determined in their laws. The antinomy that reveals itself in the application of laws is, given our limited wisdom, the best test of nomothetic, for it makes reason, which does not easily notice its missteps in abstract speculation, attentive to the moments in the determination of its principles.[14]

This skeptical method, however, is essential only to transcendental philosophy. In every other field of inquiry it can perhaps be dispensed with, but not in this one. In mathematics its use would be absurd, because in mathematics no false assertions can hide and make themselves invisible, since its proofs must always proceed along the thread of pure intuition, and indeed through a synthesis that is always evident. In experimental philosophy a doubt that suspends judgment may well be useful; but at least no misunderstanding is possible there that could not easily be removed, and the ultimate means of deciding the dispute must in the end lie in experience, whether they are found early or late.[15] Morals, too, can give all its principles *in concreto*, together with their practical consequences, at least in possible experiences, and so avoid the misunderstanding that comes from abstraction. Transcendental assertions, by contrast,

14 Nomothetic: lawgiving, the framing of laws.
15 Experimental philosophy: natural science based on experiment.

which presume to have insights extending even beyond the field of all possible experiences, are neither in the position of having their abstract synthesis given in some *a priori* intuition, [293] nor so constituted that their misunderstanding could be discovered by means of some experience. Transcendental reason therefore allows no other touchstone than the attempt to unite its assertions with one another—and hence, first, their free and unhindered contest with one another. This contest we shall now set up.[16]

THE FIRST ANTINOMY: THESIS

The world has a beginning in time and is bounded in space.

[294] The world has a beginning in time, and in space it is also enclosed within boundaries.

PROOF OF THE THESIS

An infinite series cannot have elapsed, and an infinite given whole cannot be thought as complete.

For suppose the world had no beginning in time. Then up to every given point of time an eternity has elapsed, and hence an infinite series of successive states of things in the world has passed away. But the infinity of a series consists precisely in this, that it can never be completed through successive synthesis. Therefore an infinite elapsed world-series is impossible, and so a beginning of the world is a necessary condition of its existence—which was the first thing to be proved.

As for the *second* point, again assume the opposite. Then the world will be an infinite given whole of things existing at the same time. Now we can think the magnitude of a *quantum* that is

16 KANT'S NOTE. The antinomies follow one another in the order of the transcendental ideas listed above.

not given within certain boundaries of every intuition[17] in no other way than through the synthesis of its parts, and the totality of such a *quantum* only through the completed synthesis, or through the repeated addition of unity to itself.[18] Accordingly, to think the world, which fills all spaces, as a whole, [296] the successive synthesis of the parts of an infinite world would have to be regarded as completed. That is, an infinite time would have to be regarded as having elapsed in the enumeration of all coexisting things—which is impossible. Accordingly, an infinite aggregate of actual things cannot be regarded as a given whole, and hence not as given *at the same time* either. A world is consequently *not infinite* in its extension in space, but enclosed within its boundaries—which was the second point.

THE FIRST ANTINOMY: ANTITHESIS

The world has no beginning and no boundaries, but is infinite in time and space.

[295] The world has no beginning and no boundaries in space, but is infinite with regard to time as well as space.

PROOF OF THE ANTITHESIS

A beginning would require an empty time, and a boundary an empty space; both are nothing.

For suppose it has a beginning. Since a beginning is an existence preceded by a time in which the thing is not, there must have been a preceding time in which the world was not, that is, an empty time. But in an empty time no coming-into-being of any

17 KANT'S NOTE. We can intuit an indeterminate quantum as a whole if it is enclosed within boundaries, without needing to construct its totality through measurement, that is, through the successive synthesis of its parts. For the boundaries already determine the completeness, by cutting off anything more.
18 KANT'S NOTE. The concept of totality is in this case nothing but the representation of the completed synthesis of its parts. For since we cannot draw the concept from the intuition of the whole (which in this case is impossible), we can grasp it only through the synthesis of the parts up to the completion of the infinite, at least in the idea.

thing is possible, because no part of such a time has in itself, rather than any other part, some distinguishing condition of existence rather than of nonexistence (whether one assumes that the thing arises of itself or through another cause). So many a series of things can indeed begin in the world, but the world itself can have no beginning, and it is therefore infinite with regard to past time.

As for the second point, first assume the opposite: that the world is finite and bounded in space. Then it is located in an empty space that is not bounded. So there would be found not only a relation of things *in space* but also a relation of things *to space*. Now since the world is an absolute whole, outside of which no object of intuition, and hence no correlate of the world, is to be found with which it stands in relation, [297] the relation of the world to empty space would be a relation of the world to *no object*. But such a relation, and hence also the bounding of the world by empty space, is nothing. Therefore the world is not bounded at all in space; that is, it is infinite with regard to extension.[19]

REMARK ON THE FIRST ANTINOMY: ON THE THESIS

Kant rejects a faulty dogmatic concept of infinity and states the true, transcendental one.

[296] In these conflicting arguments I have not sought out deceptions in order, say, to conduct (as the saying goes) a lawyer's

proof—one that exploits the carelessness of the opponent to its own advantage, and gladly lets him appeal to a misunderstood law so as to build its own unlawful claims on refuting it. Each of these proofs is drawn from the nature of the matter, and the advantage that the fallacies of the dogmatists on either side might give us has been set aside.

I could also have given the Thesis an apparent proof by prefacing it, as dogmatists usually do, with a faulty concept of the infinity of a given magnitude. A magnitude is *infinite* if none greater than it (that is, greater than the multitude of a given unit contained in it) is possible. Now no multitude is the greatest, because one or more units can always be added. Therefore an infinite given magnitude, and hence also an infinite world (in terms both of the elapsed series and of extension), is impossible; [298] the world is therefore bounded in both respects. That is how I could have conducted my proof. But this concept does not agree with what is understood by an infinite whole. What that concept represents is not *how large* the whole is; so its concept is not the concept of a *maximum*. Rather, it thinks only the whole's relation to an arbitrarily chosen unit, with respect to which the whole is greater than any number. According as the unit is taken to be greater or smaller, the infinite would be greater or smaller. But infinity, since it consists merely in the relation to this given unit, would always remain the same—although, to be sure, the

19 KANT'S NOTE. Space is merely the form of outer intuition (formal intuition), not an actual object that can be outwardly intuited. Space prior to all things that determine it (fill or bound it)—or rather, that give an *empirical intuition* in accordance with its form—is, under the name of absolute space, nothing but the mere possibility of outer appearances, insofar as they either exist in themselves or can be added to given appearances. Empirical intuition, therefore, is not composed of appearances and space (of perception and empty intuition). The one is not the correlate of the other in synthesis; they are merely combined in one and the same empirical intuition, as its matter and form. If one tries to posit one of these two elements outside the other (space outside all appearances), there arise from this all sorts of empty determinations of outer intuition that are nonetheless not possible perceptions. An example is the motion or rest of the world in infinite empty space: a determination of the relation of the two to each other that can never be perceived, and is therefore the predicate of a mere thought-entity.

absolute magnitude of the whole would not be cognized at all in this way; nor is that at issue here.

The true (transcendental) concept of infinity is that the successive synthesis of unity in traversing a quantum can never be completed.[20] From this it follows quite certainly that an eternity of actual successive states cannot have elapsed up to a given (the present) point of time, and so the world must have a beginning.

With regard to the second part of the Thesis, the difficulty of an infinite and yet elapsed series does fall away; for the manifold of a world infinite in extension is given *at the same time*. But to think the totality of such a multitude, since we cannot appeal to boundaries that of themselves make up this totality in intuition, we must give an account of our concept. [300] In such a case the concept cannot go from the whole to the determinate multitude of the parts, but must demonstrate the possibility of a whole through the successive synthesis of the parts. Now since this synthesis would have to constitute a series that can never be completed, one cannot think a totality prior to it, and hence not through it either. For the concept of totality is itself in this case the representation of a completed synthesis of the parts; and this completion, and hence also the concept of it, is impossible.

REMARK ON THE FIRST ANTINOMY: ON THE ANTITHESIS

Kant rebuts the Leibnizian evasion that the world could be bounded without empty time or space.

[297] The proof of the infinity of the given world-series and of the world-whole rests on this: that in the opposite case an empty time, and likewise an empty space, would have to make up the boundary of the world. Now I am not unaware that evasions are sought against this consequence, by alleging that a boundary of the world in time and space is quite possible without one's having to assume an absolute time before the world's beginning, or

20 KANT'S NOTE. The quantum thereby contains a multitude (of a given unit) that is greater than any number, which is the mathematical concept of the infinite.

an absolute space extending outside the actual world—which is impossible. With the latter part of this opinion of the philosophers of the Leibnizian [299] school I am entirely satisfied. Space is merely the form of outer intuition, not an actual object that can be outwardly intuited, and not a correlate of appearances but the form of appearances themselves. Space, therefore, cannot occur absolutely (on its own) as something determining in the existence of things, because it is not an object at all but only the form of possible objects. Things as appearances, then, do determine space: that is, among all of its possible predicates (magnitude and relation) they bring it about that these or those belong to actuality. But conversely, space, as something subsisting on its own, cannot determine the actuality of things with regard to magnitude or shape, because in itself it is nothing actual. A space (whether full or empty)[21] can therefore well be bounded by appearances, but appearances cannot be *bounded by an empty space* outside them. The same holds of time. Granting all this, it is nonetheless indisputable that one must assume these two non-entities—empty space outside the world and empty time before it—if one assumes a boundary of the world, whether in space or in time.

For as to the way out by which people try to evade our conclusion—that if the world has boundaries (in time and space), the infinite void would have to determine the existence of actual things with respect to their magnitude—it secretly consists only in this. Instead of a *sensible world*, one thinks of who knows what intelligible world; instead of a first beginning (an existence preceded by a time of non-being), one thinks of an existence in general that *presupposes no other condition* in the world; instead of the boundary of extension, one thinks of *limits* of the world-whole; and in this way one gets time and space out of the way. But we are speaking here only of the *mundus phaenomenon* and

21 KANT'S NOTE. It is easy to see that what is meant here is this: *empty space, insofar as it is bounded by appearances*—and hence empty space *within the world*—at least does not contradict transcendental principles, and so may be conceded as far as they are concerned (although its possibility is not thereby immediately asserted).

its magnitude, and in its case one can by no means abstract from the conditions of sensibility just mentioned without destroying its very essence. The sensible world, if it is [301] bounded, necessarily lies in the infinite void. If one wants to leave this out, and with it space in general as the *a priori* condition of the possibility of appearances, then the entire sensible world falls away. In our problem, this world alone is given to us. The *mundus intelligibilis* is nothing but the general concept of a world in general, in which one abstracts from all conditions of intuiting it; consequently, with respect to it no synthetic proposition at all, whether affirmative or negative, is possible.[22]

THE SECOND ANTINOMY: THESIS

Every composite substance consists of simple parts, and only the simple exists.

[300] Every composite substance in the world consists of simple parts, and nothing exists anywhere but the simple or what is composed of it.

PROOF OF THE THESIS

If all composition is removed in thought, something simple must remain, or no substance was given.

For suppose that composite substances did not consist of simple parts. Then, if all composition were removed in thought, no composite part would remain, and (since there are no simple parts) no simple part either—hence nothing at all would remain, and consequently no substance would have been given. Either, then, it is impossible to remove all composition in thought, or after its removal something must remain that subsists without any composition, that is, the [302] simple. In the first case, however, the composite would again not consist of substances (because with substances composition is only a contingent relation, without which they must subsist as beings that persist by

22 *Mundus intelligibilis* (Latin): the intelligible world.

themselves). Now since this case contradicts the presupposition, only the second remains: namely, that the substantial composite in the world consists of simple parts.

From this it follows immediately that the things of the world are, one and all, simple beings; that composition is only an external state of them; and that, even if we can never put the elementary substances completely out of this state of combination and isolate them, reason must still think them as the first subjects of all composition, and hence, prior to it, as simple beings.

THE SECOND ANTINOMY: ANTITHESIS

No composite thing consists of simple parts, and nothing simple exists in the world.

[301] No composite thing in the world consists of simple parts, and nothing simple exists anywhere in it.

PROOF OF THE ANTITHESIS

Whatever occupies space is composite, since space consists only of spaces; the simple is never experienced.

Suppose that a composite thing (as substance) consisted of simple parts. Since every outer relation, and hence every composition of substances, is possible only in space, the space that the composite occupies must consist of just as many parts as the composite itself. Now space does not consist of simple parts, but of spaces. So every part of the composite must occupy a space. But the absolutely first parts of every composite are simple. So the simple occupies a space. Now everything real that occupies a space contains within itself a manifold of elements external to one another, and is therefore composite—and, as a real composite, composed not of accidents (for these cannot be external to one another without substance) [303] but of substances. So the simple would be a substantial composite, which contradicts itself.

The second proposition of the Antithesis, that nothing simple at all exists in the world, is meant here to signify only this: that the existence of the absolutely simple cannot be established from any experience or perception, whether outer or inner; and that the absolutely simple is therefore a mere idea, whose objective reality can never be established in any possible experience, and which in the exposition of appearances thus has no application and no object. For let us assume that an object of experience could be found for this transcendental idea. Then the empirical intuition of some object would have to be cognized as one that contained absolutely no manifold of elements external to one another and combined into unity. Now from our not being conscious of such a manifold, no inference holds to its complete impossibility in any intuition of an object; yet this complete impossibility is absolutely required for absolute simplicity. It follows that simplicity cannot be inferred from any perception whatever. Since, then, nothing can ever be given as an absolutely simple object in any possible experience, while the sensible world must be regarded as the sum total of all possible experiences, nothing simple is given anywhere in it.

This second proposition of the Antithesis goes much further than the first. The first banishes the simple only from the intuition of the composite, whereas the second removes it from nature as a whole. That is also why it could be proved not from the concept of a given object of outer intuition (the composite), but only from that object's relation to a possible experience in general.

REMARK ON THE SECOND ANTINOMY: ON THE THESIS

Kant limits the Thesis to substantial wholes and calls it the dialectical principle of monadology.

304 When I speak of a whole that necessarily consists of simple parts, I mean by this only a substantial whole, as the composite proper—that is, the contingent unity of a manifold that is *given* as *separate* (at least in thought), is placed in mutual combination,

and thereby makes up one thing. Space, strictly speaking, should be called not a *compositum* but a *totum*, because its parts are possible only in the whole, and not the whole through the parts. At most it could be called a *compositum ideale*, but not *reale*. But this is only a subtlety.[23] Since space is not a composite of substances (not even of real accidents), if I remove all composition in it, nothing must remain, not even the point; for the point is possible only as the boundary of a space (hence of a composite). Space and time, then, do not consist of simple parts. What belongs only to the state of a substance, even if it has a magnitude (for example, alteration), does not consist of the simple either; that is, a certain degree of alteration does not come about through an accumulation of many simple alterations. Our inference from the composite to the simple holds only for things that subsist by themselves. But accidents of a state do not subsist by themselves. So one can easily spoil the proof [306] of the necessity of the simple, as the constituent of every substantial composite—and with it one's whole case—by extending it too far and trying to make it hold for everything composite without distinction, as has in fact happened more than once already.

Here, moreover, I speak of the simple only insofar as it is necessarily given in the composite, since the composite can be resolved into it as into its constituents. The proper meaning of the word *Monas* (as Leibniz used it) should really apply only to the simple that is given *immediately* as simple substance (for example, in self-consciousness), and not as an element of the composite, which might better be called the *Atomus*. And since I want to prove simple substances only with respect to the composite, as its elements, I could call the Thesis of the second antinomy transcendental *atomism*. But because this word has long been used to designate a particular way of explaining bodily appearances (*molecularum*), and so presupposes empirical con-

23 *Compositum*, *totum* (Latin): a compound, a whole; *compositum ideale* / *reale*: an ideal / real compound.

cepts, the Thesis may instead be called the dialectical principle of *monadology*.[24]

REMARK ON THE SECOND ANTINOMY: ON THE ANTITHESIS

Kant answers the monadists and the claim that the thinking I is a simple substance.

305 Against this proposition of the infinite division of matter, whose ground of proof is purely mathematical, the *monadists* bring objections. These already make themselves suspect by refusing to accept the clearest mathematical proofs as insights into the constitution of space, insofar as space is in fact the formal condition of the possibility of all matter; instead they regard them merely as inferences from abstract but arbitrary concepts that could not be referred to actual things. As if it were even possible to devise another kind of intuition than the one given in the original intuition of space; and as if the *a priori* determinations of space did not at the same time concern everything that is possible only by filling this space. If we were to listen to them, we would have to think, besides the mathematical point—which is simple, but is not a part, only the boundary of a space—physical points as well, which are also simple but have the advantage of filling space, as parts of it, by their mere aggregation. I will not repeat here the common and clear refutations of this absurdity, which are to be found in abundance; indeed it is entirely futile to try to argue away the evidence of mathematics by merely discursive concepts. I note only that if philosophy here quibbles with mathematics, this happens because it forgets that in this question we are concerned only with *appearances* and their condition. Here, however, it is not enough to find the concept of the simple for the pure *concept of the understanding* of the composite; what must be found is the intuition of the simple for the *intuition* of the composite (matter). And according to the laws of sensibility, and hence in objects of the senses, this is entirely impossible. Of a whole of

24 *Atomus* (Latin): atom; *molecularum*: "of molecules," i.e., corpuscular physics.

substances thought merely by the pure understanding, it may always hold that we must have the simple prior to all composition of it. But this does not hold of the *totum substantiale phaenomenon*, which, as empirical intuition in space, carries with it the necessary property that no part of it is simple, [307] because no part of space is simple.[25] The monadists, however, have been subtle enough to try to evade this difficulty. They do not presuppose space as a condition of the possibility of the objects of outer intuition (bodies); instead they presuppose these bodies, and the dynamic relation of substances in general, as the condition of the possibility of space. Now we have a concept of bodies only as appearances; and as such they necessarily presuppose space as the condition of the possibility of all outer appearance. The evasion is therefore futile, as indeed it was sufficiently cut off above in the Transcendental Aesthetic. If bodies were things in themselves, the monadists' proof would certainly hold.

The second dialectical assertion has this peculiarity: it is opposed by a dogmatic assertion that, of all sophistical assertions, is the only one that undertakes to prove manifestly, in an object of experience, the actuality of what we counted above merely among transcendental ideas—namely, the absolute simplicity of substance. This is the assertion that the object of inner sense, the I that thinks, is an absolutely simple substance. Without going into this now (since it was considered in more detail above), I note only this. If something is thought merely as an object, without adding any synthetic determination of its intuition (as happens in the wholly bare representation "I"), then of course no manifold and no composition can be perceived in such a representation. Moreover, since the predicates through which I think this object are merely intuitions of inner sense, nothing can occur in them either that would prove a manifold of elements external to one another, and hence real composition. It is only self-consciousness, then, that brings with it the fact that, because the subject that thinks is at the same

25 *Totum substantiale phaenomenon* (Latin): the substantial whole as appearance.

time its own object, it cannot divide itself (although it can divide the determinations inhering in it); for with respect to itself every object is absolute unity. Nevertheless, if this subject is regarded *externally*, as an object of intuition, it would surely exhibit composition in appearance. And that is how it must always be regarded if one wants to know whether or not there is in it a manifold of elements *external* to one another.

THE THIRD ANTINOMY: THESIS

Besides causality according to laws of nature, a causality through freedom must be assumed.

[308] Causality according to laws of nature is not the only causality from which the appearances of the world can all be derived. To explain them, it is necessary to assume another causality as well: a causality through freedom.

PROOF OF THE THESIS

Without a spontaneous first beginning, the series of causes would never be complete.

Assume that there is no other causality than that according to laws of nature. Then everything *that happens* presupposes a previous state on which it follows inevitably according to a rule. But the previous state must itself be something that has happened (that has come to be in time, since previously it was not); for if it had always been, its consequence too would not have first arisen but would always have been. So the causality of the cause through which something happens is itself something *that has happened*, which, according to the law of nature, again presupposes a previous state and its causality, and this in turn a still earlier one, and so on. If, then, everything happens according to mere laws of nature, there is always only a subordinate beginning, never a first one, and so no completeness at all of the series on the side of the causes that descend from one another. But the law of nature consists precisely in this: that nothing happens without a cause sufficiently determined *a priori*. So the pro-

position that all causality is possible only according to laws of nature contradicts itself in its unlimited universality, and this causality cannot therefore be assumed to be the only one.

310 Accordingly, a causality must be assumed through which something happens without its cause being determined further by another, preceding cause according to necessary laws—that is, an *absolute spontaneity* of causes to begin *by themselves* a series of appearances that runs according to laws of nature. This is transcendental freedom, without which, even in the course of nature, the series of appearances on the side of causes is never complete.

THE THIRD ANTINOMY: ANTITHESIS

There is no freedom; everything in the world happens solely according to laws of nature.

309 There is no freedom; everything in the world happens solely according to laws of nature.

PROOF OF THE ANTITHESIS

Transcendental freedom would break the causal law and with it the unity of experience.

Suppose there were a *freedom* in the transcendental sense, as a special kind of causality according to which the events of the world could come about—namely, a faculty of absolutely beginning a state, and hence also a series of its consequences. Then not only would a series begin absolutely through this spontaneity, but the determination of this spontaneity itself to produce the series—that is, the causality—would begin absolutely, so that nothing precedes by which this occurring action is determined according to constant laws. But every beginning of action presupposes a state of the cause not yet acting; and a dynamically first beginning of action presupposes a state that has no causal connection whatever with the preceding state of that same cause—that is, one that in no way follows from it. Transcendental freedom is thus opposed to the causal law. It is a

combination of the successive states of efficient causes according to which no unity of experience is possible, and which is therefore not met with in any experience either. It is thus an empty thought-entity.

We have, then, nothing but *nature,* in which we must seek the connection and order of the world's events. Freedom (independence) from the laws of nature is indeed a *liberation* from *constraint,* but also from the *guiding thread* of all rules. For one cannot say that, in place of the laws of nature, laws of freedom enter into the causality of the world's course; for if freedom were determined according to laws, it would not be freedom, but itself nothing other than nature. Nature and transcendental freedom thus differ as lawfulness and lawlessness. Nature, to be sure, burdens the understanding with the [311] difficulty of seeking the descent of events ever higher in the series of causes, because the causality in them is always conditioned; but in compensation it promises thoroughgoing and lawful unity of experience. The deception of freedom, by contrast, does promise the inquiring understanding rest in the chain of causes, by leading it to an unconditioned causality that begins to act by itself. But since this causality is itself blind, it breaks off the guiding thread of rules by which alone a thoroughly connected experience is possible.

REMARK ON THE THIRD ANTINOMY: ON THE THESIS

Kant explains transcendental freedom, using the example of rising freely from a chair.

[310] The transcendental idea of freedom by no means makes up the whole content of the psychological concept of that name, which is largely empirical. It makes up only the content of the absolute spontaneity of action, as the real ground of the action's imputability. Yet it is the real stumbling block for philosophy, which finds insurmountable difficulties in admitting this kind of unconditioned causality. What has always put speculative reason in such great perplexity in the question of the freedom of

the will is thus really only *transcendental*, and concerns solely whether a faculty must be assumed of beginning *by itself* a series of successive things or states. How such a faculty is possible is not something we need to be able to answer. For with causality according to laws of nature, too, we must be content to cognize *a priori* that such causality must be presupposed, even though we in no way comprehend how the existence of one thing can be posited through the existence of another, and in that regard must hold solely to experience. Now, we have really demonstrated this necessity of a first beginning of a series of appearances from freedom only insofar as it is required to make an origin of the world comprehensible, while all subsequent states can be taken as a succession according to mere laws of nature. But since the faculty of beginning a series in time [312] entirely by itself has thereby been proved (though not understood), we are now also permitted to let various series begin by themselves, as regards their causality, in the midst of the world's course, and to ascribe to the substances in the world a faculty of acting from freedom. But one should not be held up here by a misunderstanding: namely, that because a successive series in the world can have only a comparatively first beginning—some state of things in the world always preceding it—no absolutely first beginning of series is possible during the world's course. For we are speaking here of an absolutely first beginning not in time but in causality. If (for example) I now rise from my chair completely freely, without the necessarily determining influence of natural causes, then a new series begins absolutely in this event, together with its natural consequences to infinity, even though in time this event is only the continuation of a preceding series. For this resolution and deed do not lie at all in the succession of mere natural effects, and are not a mere continuation of them. Rather, the determining natural causes cease entirely above it with respect to this occurrence. The occurrence does follow upon them, but does not follow from them; and it must therefore be called an absolutely first beginning of a series of appearances—not in time, to be sure, but with respect to causality.

The need of reason to appeal to a first beginning from freedom in the series of natural causes is very clearly confirmed by the fact that all the philosophers of antiquity (the Epicurean school excepted) saw themselves compelled, in explaining the motions of the world, to assume a *first mover*—that is, a freely acting cause that began this series of states first and by itself. For they did not venture to make a first beginning comprehensible from mere nature.[26]

REMARK ON THE THIRD ANTINOMY: ON THE ANTITHESIS

The defender of nature's omnipotence argues that lawless freedom would destroy the connection of nature.

311 The defender of the omnipotence of nature (transcendental *physiocracy*), in opposition to the doctrine of freedom, would maintain his proposition against that doctrine's sophistical inferences in the following way. *If you assume nothing mathematically first in the world with respect to time, then you have no need to seek anything dynamically first with respect to causality either*. Who told you to devise an absolutely first state of the world, and hence an absolute beginning of the gradually elapsing series of appearances—and, so that you might provide your imagination with a resting point, to set boundaries to unlimited nature?[27] Since the substances in the world have always existed—at least the unity of experience makes such a presupposition necessary—there is no difficulty in assuming also that the change of their states, that is, a series of their alterations, has always existed, and hence that no first beginning, either mathematical or dynamical, need be sought. The possibility of such an infinite descent without a first member, in relation to which everything else merely follows, cannot be made comprehensible as regards its possibility. But if for that reason you want to throw away these riddles of nature, you will find yourselves compelled to

26 The "first mover" is Aristotle's unmoved mover (*Physics* VIII; *Metaphysics* XII).
27 *Physiocracy*: "rule of nature"; Kant borrows the name of the French economic school of the Physiocrats.

reject many fundamental synthetic properties [313] (fundamental forces), which you can comprehend just as little; and even the possibility of an alteration in general must become a stumbling block for you. For if you did not find through experience that alteration is actual, you would never be able to think up *a priori* how such an unceasing succession of being and non-being is possible.

Even if a transcendental faculty of freedom is perhaps conceded in order to begin the alterations of the world, this faculty would at least have to be only outside the world (though it always remains a bold presumption to assume, outside the sum total of all possible intuitions, an object that cannot be given in any possible perception). But to attribute such a faculty to substances in the world itself can never be permitted. For then the connection of appearances that necessarily determine one another according to universal laws—the connection we call nature—would largely vanish, and with it the mark of empirical truth that distinguishes experience from dreaming. For alongside such a lawless faculty of freedom, nature can scarcely be thought any longer, since the laws of nature would be unceasingly altered by the influences of freedom, and the play of appearances, which according to mere nature would be regular and uniform, would thereby be made confused and disconnected.

THE FOURTH ANTINOMY: THESIS

An absolutely necessary being belongs to the world, either as its part or as its cause.

[314] There belongs to the world something that, either as its part or as its cause, is an absolutely necessary being.

PROOF OF THE THESIS

Every alteration presupposes a complete series of conditions ending in something absolutely necessary.

The sensible world, as the whole of all appearances, also contains a series of alterations. For without these, not even the representation of the time series, as a condition of the possibility of the sensible world, would be given to us.[28] But every alteration stands under its condition, which precedes it in time and under which it is necessary. Now every conditioned thing that is given presupposes, with respect to its existence, a complete series of conditions up to the absolutely unconditioned, which alone is absolutely necessary. So something absolutely necessary must exist if an alteration exists as its consequence. But this necessary thing itself belongs to the sensible world. For suppose it were outside that world: then the series of alterations in the world would derive its beginning from it, without this necessary cause itself belonging to the sensible world. Now this is impossible. For since the beginning of a time series can be determined only by what precedes it in time, the highest condition of the beginning of a series of alterations must exist in the time when the series did not yet exist (for a beginning is an existence preceded by a time in which the thing that begins did not yet exist). So the causality of the necessary cause of alterations, and hence the cause itself, belongs to time, and hence to appearance (in which alone time, as its form, is possible). Consequently it cannot be thought as separate from the [316] sensible world, as the sum total of all appearances. Therefore something absolutely necessary is contained in the world itself (whether this be the whole world series itself or a part of it).

28 KANT'S NOTE. Time, as the formal condition of the possibility of alterations, does indeed objectively precede them. But subjectively, and in the actuality of consciousness, this representation, like every other, is given only on the occasion of perceptions.

THE FOURTH ANTINOMY: ANTITHESIS

No absolutely necessary being exists, either in the world or outside it as its cause.

315 No absolutely necessary being exists anywhere, either in the world or outside the world as its cause.

PROOF OF THE ANTITHESIS

A necessary being within the series contradicts itself; one outside it would have to act in time.

Suppose that the world itself is a necessary being, or that there is one in it. Then in the series of its alterations there would either be a beginning that was unconditionally necessary, and hence without a cause—which conflicts with the dynamical law of the determination of all appearances in time—or else the series itself would be without any beginning and, although contingent and conditioned in all its parts, would nevertheless be absolutely necessary and unconditioned as a whole. This contradicts itself, because the existence of a multitude cannot be necessary if no single part of it possesses an existence necessary in itself.

Suppose, on the other hand, that there is an absolutely necessary cause of the world outside the world. Then, as the highest member in the *series of causes* of the world's alterations, it would first begin the existence of these alterations and their series.[29] But then it would also have to begin to act, and its causality would belong in time, and for that very reason in the sum total of appearances, that is, in the world. Consequently the cause itself 317 would not be outside the world, which contradicts the presupposition. Therefore there is no absolutely necessary

29 KANT'S NOTE. The word "begin" is taken in a twofold meaning. The first is *active*, where the cause begins a series of states as its effect (*infit*); the second is *passive*, where causality begins in the cause itself (*fit*). Here I infer from the former to the latter.

TRANSLATOR'S NOTE. *Infit* (Latin): "it begins" (something); *fit*: "it comes about."

being either in the world or outside it (but in causal connection with it).

REMARK ON THE FOURTH ANTINOMY: ON THE THESIS

Kant shows how the cosmological argument illegitimately leaps from empirical to intelligible contingency.

316 To prove the existence of a necessary being, I am obliged here to use no argument but a *cosmological* one—namely, one that ascends from the conditioned in appearance to the unconditioned in the concept, regarding the latter as the necessary condition of the absolute totality of the series. To attempt the proof from the mere idea of a highest of all beings in general belongs to another principle of reason, and such a proof will therefore have to come up separately.

Now the pure cosmological proof can establish the existence of a necessary being only by leaving it undecided at the same time whether this being is the world itself or a thing distinct from it. For to settle the latter question, fundamental principles are required that are no longer cosmological and do not proceed in the series of appearances. What is required instead are concepts of contingent beings in general (insofar as they are considered merely as objects of the understanding), and a principle for connecting these with a necessary being through mere concepts. All this belongs to a *transcendent* philosophy, for which this is not yet the place.

But once one has begun the proof cosmologically, by taking as its basis the series of appearances and the regress in it according to empirical laws of causality, one cannot afterward leap away from this and pass over to something that does not belong in the series as a member at all. For something must be regarded as a condition in 318 the very same meaning in which the relation of the conditioned to its condition was taken in the series that was supposed to lead to this highest condition in continuous progression. Now if this relation is sensible and belongs to the possible empirical use of the understanding, then the

highest condition or cause can close the regress only according to laws of sensibility, and hence only as belonging to the time series; and the necessary being must be regarded as the highest member of the world series.

Nevertheless, people have taken the liberty of making such a leap (*μετάβασις εἰς ἄλλο γένος*) [a shift into another kind]. That is, from the alterations in the world they inferred their empirical contingency—their dependence on empirically determining causes—and obtained an ascending series of empirical conditions, which was quite right. But since they could find no first beginning and no highest member in it, they suddenly abandoned the empirical concept of contingency and took up the pure category. This category then gave rise to a merely intelligible series, whose completeness rested on the existence of an absolutely necessary cause; and this cause, since it was now bound to no sensible conditions, was also freed from the temporal condition of beginning its causality itself.[30] But this procedure is entirely illegitimate, as can be inferred from the following.

Contingent, in the pure sense of the category, is that whose contradictory opposite is possible. Now one cannot infer at all from empirical contingency to this intelligible contingency. When something is altered, the opposite (of its state) is actual at another time, and hence also possible. But this is not the contradictory opposite of the previous state. That would require that, at the very time when the previous state was, its opposite could have been in its place—and this cannot be inferred at all from the alteration. A body that was in motion = A comes to rest = *non* A. Now from the fact that a state opposed to state A follows [320] upon it, it cannot be inferred at all that the contradictory opposite of A is possible, and hence that A is contingent. For that would require that, at the same time when there was motion, there could have been rest instead. All we know is that rest was actual in the following time, and hence also possible. But

30 The phrase is Aristotle's (*On the Heavens* I.1; *Posterior Analytics* I.7) for an illegitimate shift from one genus or subject matter to another.

motion at one time and rest at another are not contradictorily opposed to each other. So the succession of opposed determinations, that is, alteration, by no means proves contingency according to concepts of the pure understanding, and so it cannot lead to the existence of a necessary being according to pure concepts of the understanding either. Alteration proves only empirical contingency, that is, that the new state could not have taken place at all by itself, without a cause belonging to the previous time, in accordance with the law of causality. This cause, even if it is assumed to be absolutely necessary, must in this way still be met with in time and belong to the series of appearances.

REMARK ON THE FOURTH ANTINOMY: ON THE ANTITHESIS

The same ground of proof yields opposite conclusions, like the dispute over the moon's rotation.

317 If, in ascending in the series of appearances, one thinks one meets difficulties against the existence of an absolutely necessary highest cause, then these difficulties too must not be based on mere concepts of the necessary existence of a thing in general, and so must not be ontological. They must arise from the causal connection with a series of appearances, in assuming for that series a condition that is itself unconditioned; hence they must be cosmological and inferred according to empirical laws. It must be shown, namely, that ascent in the series of causes (in the sensible world) can never end with an empirically unconditioned condition, and that the cosmological argument from the contingency of the world's states, as evidenced by their alterations, turns out against the assumption of a cause that is first and that absolutely first begins the series.

But this antinomy displays a strange contrast: from the very same ground of proof from which the Thesis inferred the existence 319 of an original being, the Antithesis infers its non-existence, and with the same rigor. First it was said: *there is a necessary being*, because the whole of past time contains the series of all conditions, and with it, therefore, the unconditioned (the

necessary) as well. Now it is said: *there is no necessary being*, precisely because the whole of elapsed time contains the series of all conditions (which are therefore, one and all, conditioned in turn). The reason for this is as follows. The first argument looks only to the *absolute totality* of the series of conditions, one of which determines another in time, and thereby obtains something unconditioned and necessary. The second, by contrast, takes into consideration the *contingency* of everything that is determined *in the time series* (because before each thing there precedes a time in which the condition itself must again be determined as conditioned), whereby everything unconditioned and all absolute necessity falls away completely. Yet the manner of inference in both is entirely suited even to common human reason, which frequently falls into disagreement with itself when it considers its object from two different standpoints. Monsieur *de Mairan* regarded the dispute between two famous astronomers, which arose from a similar difficulty about the choice of standpoint, as a [321] phenomenon remarkable enough to write a special treatise on it. The one reasoned thus: *the moon rotates on its axis*, because it always turns the same side toward the earth. The other: *the moon does not rotate on its axis*, precisely because it always turns the same side toward the earth. Both inferences were correct, depending on the standpoint from which one chose to observe the moon's motion.[31]

SECTION 3. THE INTEREST OF REASON IN THIS CONFLICT

Kant weighs the practical, speculative and popular interests behind dogmatism and empiricism.

[322] Here, then, we have the entire dialectical play of the cosmological ideas. They do not permit any congruent object to be given to them in any possible experience; they do not even permit reason to think them in agreement with universal laws of experience. And yet they are not arbitrarily invented: reason is neces-

31 Jean-Jacques Dortous de Mairan (1678–1771), French physicist and astronomer, who wrote on this dispute for the Paris Academy of Sciences.

sarily led to them in the continuous progress of empirical synthesis whenever it seeks to free from every condition what, according to rules of experience, can always be determined only as conditioned, and to grasp it in its unconditioned totality. These sophistical assertions are so many attempts to solve four natural and unavoidable problems of reason. There can be just so many of these problems, no more and no fewer, because there are no more series of synthetic presuppositions that bound empirical synthesis *a priori*.

We have presented the brilliant pretensions of reason, which extends its domain beyond all boundaries of experience, only in dry formulas that contain merely the ground of its legal claims; and, as befits a transcendental philosophy, we have stripped them of everything empirical, even though the full splendor of reason's assertions can shine forth only in connection with the empirical. But in this application, and in the progressive extension of the use of reason—as it begins from the field of experiences and gradually soars up to these sublime ideas—philosophy displays a dignity which, if only it could make good its pretensions, would leave the worth of all other human science far beneath it. For it promises the foundation for our greatest expectations and prospects concerning the ultimate ends in which all the efforts of reason must finally unite. Whether the world has a beginning and some boundary to its extension in space; whether there is anywhere—perhaps in my thinking self—an indivisible [323] and indestructible unity, or nothing but what is divisible and transitory; whether I am free in my actions or, like other beings, led on the thread of nature and fate; whether, finally, there is a highest cause of the world, or whether the things of nature and their order make up the ultimate object at which we must stop in all our reflections—these are questions for whose solution the mathematician would gladly give up his entire science. For that science can give him no satisfaction with respect to the highest and most important ends of humanity. Even the real dignity of mathematics (that pride of human reason) rests on this. It guides reason to understand nature, in

the large as well as in the small, in its order and regularity, and likewise in the admirable unity of the forces that move it, far beyond all the expectations of a philosophy that builds on common experience. In doing so, mathematics itself gives occasion and encouragement to a use of reason extended beyond all experience; and it likewise supplies the philosophy concerned with this use with the most excellent materials for supporting its investigation, so far as the nature of that investigation permits, with appropriate intuitions.

Unfortunately for speculation (but perhaps fortunately for the practical vocation of human beings), reason, in the midst of its greatest expectations, finds itself so entangled in a press of arguments and counterarguments that it has only one course left. Its honor, and even its security, do not allow it to withdraw and look on indifferently at this quarrel as a mere mock battle; still less can it simply command peace, since the object of the dispute is of great interest to it. So nothing remains for it but to reflect on the origin of this disunion of reason with itself, and to ask whether a mere misunderstanding might not be to blame. Once that misunderstanding is cleared up, proud claims on both sides may perhaps fall away; but in their place a lasting and peaceful rule of reason over the understanding and the senses would begin.

For now we will postpone this thorough discussion a little, and first consider which side we would most like to take if we were compelled to choose a party. Since in this case we are consulting not the logical touchstone of truth but merely our interest, such an inquiry, [324] although it settles nothing with respect to the contested right of the two sides, will nevertheless be useful. It will make comprehensible why those taking part in this dispute have preferred to join one side rather than the other, without any superior insight into the object being the reason for it. It will also explain other incidental matters, for example the zealous heat of the one side and the cool assertiveness of the other, and why people like to cheer the one party joy-

fully while being irreconcilably prejudiced against the other in advance.

There is, however, something that determines the point of view from which alone this preliminary appraisal can be undertaken with proper thoroughness, and that is the comparison of the principles from which the two sides proceed. Among the assertions of the Antithesis one notices a perfect uniformity in the way of thinking and complete unity of maxim—namely, a principle of pure *empiricism*, not only in explaining the appearances in the world but also in resolving the transcendental ideas of the universe itself. The assertions of the Thesis, by contrast, take as their basis, besides the empirical way of explaining within the series of appearances, intellectual beginnings as well, and to that extent their maxim is not simple. From its essential distinguishing feature, however, I will call it the *dogmatism* of pure reason.

On the side of *dogmatism* in determining the cosmological ideas of reason, then—that is, on the side of the *Thesis*—there appears:

First, a certain *practical interest*, in which every well-disposed person who understands his true advantage takes a heartfelt share. That the world has a beginning; that my thinking self is of a simple and therefore incorruptible nature; that this self is at the same time free in its voluntary actions and raised above the compulsion of nature; and finally, that the entire order of the things that make up the world derives from an original being, from which everything borrows its unity and purposive connection: these are so many cornerstones of morality and religion. The Antithesis robs us of all these supports, or at least seems to rob us of them.

Second, a *speculative interest* of reason also shows itself on this side. For if the transcendental ideas are assumed and used in this way, one can grasp the whole chain of conditions entirely *a priori* and comprehend the derivation of the conditioned, [325] since one starts from the unconditioned. This the Antithesis does not achieve, and it recommends itself very poorly by being

unable to give any answer to the question about the conditions of its synthesis that does not leave us to go on asking forever. According to the Antithesis, one must ascend from a given beginning to a still higher one; every part leads to a still smaller part; every event always has yet another event above it as its cause; and the conditions of existence in general always rest in turn on others, without ever gaining unconditioned hold and support in a self-subsistent thing as an original being.

Third, this side also has the advantage of *popularity*, which is certainly not the least part of what recommends it. The common understanding finds not the slightest difficulty in the ideas of an unconditioned beginning of all synthesis. It is in any case more used to going down to consequences than to climbing up to grounds, and in the concepts of the absolutely first (about whose possibility it does not brood) it finds comfort and at the same time a fixed point to which it can tie the guiding thread of its steps. By contrast, it can take no pleasure at all in the restless ascent from the conditioned to the condition, always with one foot in the air.

On the side of *empiricism* in determining the cosmological ideas—that is, on the side of the *Antithesis*—there is:

First, no such practical interest from pure principles of reason as morality and religion carry with them. On the contrary, mere empiricism seems to deprive both of all force and influence. If there is no original being distinct from the world; if the world is without beginning and hence also without an author; if our will is not free and the soul is as divisible and as corruptible as matter: then *moral* ideas and principles also lose all validity, and fall together with the *transcendental* ideas that were their theoretical support.

On the other hand, empiricism offers the speculative interest of reason advantages that are very enticing and far surpass those that the dogmatic teacher of the ideas of reason may promise. On the empiricist view, the understanding is always on its own proper ground, namely the field of nothing but possible experiences, whose laws it can trace, and by means of which it

can extend its secure and comprehensible cognition [326] without end. Here it can and should present the object to intuition, both in itself and in its relations—or at least in concepts whose image can be laid out clearly and distinctly in given, similar intuitions. Not only does the understanding have no need to leave this chain of the natural order in order to cling to ideas whose objects it does not know, since as thought-entities they can never be given; it is not even permitted to abandon its business and, on the pretext that the business is now finished, cross over into the domain of idealizing reason and to transcendent concepts. There it would no longer need to observe and to investigate in accordance with the laws of nature, but only to *think* and to *invent*, secure in the knowledge that it cannot be refuted by facts of nature, since it is not bound by their testimony but may pass them by, or even subordinate them to a higher authority, namely that of pure reason.

The empiricist will therefore never allow any epoch of nature to be taken as absolutely the first, or any boundary of his view into its extent to be regarded as the outermost. Nor will he allow a passage from the objects of nature that he can analyze through observation and mathematics and determine synthetically in intuition (the extended) to those that neither sense nor imagination can ever present *in concreto* (the simple). Nor will he concede that, even *in nature*, a faculty of acting independently of the laws of nature (freedom) be laid at the basis, thereby curtailing the understanding's business of tracing the origin of appearances along the guiding thread of necessary rules. Nor, finally, will he grant that the cause of anything be sought outside nature (an original being), since we know nothing but nature: it alone presents us with objects and can instruct us about its laws.

To be sure, suppose the empirical philosopher had no other aim with his Antithesis than to strike down the impertinence and presumption of a reason that mistakes its true vocation: a reason that boasts of *insight* and *knowledge* just where insight and knowledge really stop, and that tries to pass off what is allowed to count with regard to the practical interest as a fur-

thering of the speculative interest, so that, [327] wherever it suits its comfort, it may break off the thread of physical investigations and, on the pretense of extending cognition, tie that thread to transcendental ideas, through which one really cognizes only *that one knows nothing*. If, I say, the empiricist were content with this, then his principle would be a maxim of moderation in claims and modesty in assertions, and at the same time of the greatest possible extension of our understanding through the teacher actually set over us, namely experience. For in that case we would not be deprived of intellectual *presuppositions* and *faith* on behalf of our practical concerns. Only, one could not let them appear under the title and with the pomp of science and rational insight. For genuine speculative *knowledge* can nowhere meet with any object but that of experience; and if one oversteps its boundary, the synthesis that attempts new cognitions independent of experience has no substratum of intuition on which it could be exercised.

But as things are, when empiricism itself becomes dogmatic with respect to the ideas (as mostly happens) and boldly denies whatever lies beyond the sphere of its intuitive cognitions, it itself falls into the fault of immodesty. This is all the more blameworthy here because it causes irreparable harm to the practical interest of reason.

This is the opposition of *Epicureanism*[32] to *Platonism*.

[328] Each of the two says more than he knows. The *former*, however, encourages and advances knowledge, though to the detri-

ment of the practical; the *latter* supplies excellent principles for the practical, but precisely by doing so it permits reason, in everything where speculative knowledge alone is granted us, to indulge in ideal explanations of natural appearances and to neglect physical investigation over them.

Finally, as for the *third* point that can be considered in a preliminary choice between the two contending parties: it is exceedingly strange that empiricism is wholly contrary to all popularity. One would think the common understanding would eagerly take up a scheme that promises to satisfy it with nothing but cognitions of experience and their rational connection, whereas transcendental dogmatics compels it to climb up to concepts that far exceed the insight and rational capacity of the minds most practiced in thinking. But that is precisely its motive. For it then finds itself in a condition in which even the most learned can claim no advantage over it. If it understands little or nothing of these matters, no one else can boast of understanding much more; and though it cannot speak about them in as scholastically correct a way as others, it can reason sophistically about them infinitely more, because it is wandering among pure ideas, about which one is most eloquent precisely because one *knows nothing about them*—whereas in investigating nature it would have to fall completely silent and admit its ignorance. Comfort and vanity, then, are already a strong recommendation for these principles. Besides, although it is very hard for a philo-

32 KANT'S NOTE. It is still an open question, however, whether Epicurus ever put forward these principles as objective assertions. If they were perhaps nothing more than maxims for the speculative use of reason, then he showed in them a more genuinely philosophical spirit than any of the sages of antiquity. That in explaining appearances one must proceed as if the field of inquiry were not cut off by any boundary or beginning of the world; that one must take the material of the world as it must be if we are to be instructed about it by experience; that no generation of events may be used except as they are determined by unalterable laws of nature; and finally, that no cause distinct from the world may be used: these are even now very sound but little-observed fundamental principles for extending speculative philosophy, and likewise for discovering the principles of morality independently of outside sources of help. Nor may anyone who demands that we *ignore* those dogmatic propositions, so long as we are occupied with mere speculation, be accused on that account of wishing to *deny* them.

sopher to accept something as a principle without being able to give an account of it to himself, or even to introduce concepts whose objective reality cannot be seen, nothing is more usual for the common understanding. It wants something from which it can confidently begin. The difficulty of even comprehending such a presupposition does not trouble it, because (not knowing what comprehending means) it never occurs to it; and it takes as known whatever has become familiar to it through frequent use. In the end, though, all speculative interest vanishes for it before the practical, and it [329] imagines that it has insight into, and knows, whatever its fears or hopes drive it to assume or believe. Thus the empiricism of transcendentally idealizing reason is entirely robbed of all popularity. And however much it may contain that is harmful to the highest practical principles, there is no cause at all to fear that it will ever pass beyond the bounds of the schools and gain even a moderately considerable standing in public life, or any favor with the great multitude.

Human reason is by its nature architectonic; that is, it regards all cognitions as belonging to a possible system, and therefore admits only such principles as at least do not make a cognition in hand incapable of standing together with others in some system. But the propositions of the Antithesis are of such a kind that they make the completion of an edifice of cognitions wholly impossible. According to them, beyond every state of the world there is always an older one; in every part there are always still other parts, divisible in turn; before every event there is another, which was in turn produced by yet another; and in existence in general everything is always only conditioned, with no unconditioned and first existence acknowledged. Since the Antithesis, then, admits nowhere a first, and no beginning that could serve absolutely as the foundation of the building, a complete edifice of cognition is wholly impossible on such presuppositions. Hence the architectonic interest of reason (which demands not empirical but pure rational unity *a priori*) carries with it a natural recommendation for the assertions of the Thesis.

But if a person could renounce all interest and consider the assertions of reason merely according to the content of their grounds, indifferent to all consequences, then—supposing he knew no other way out of the press than to profess one or the other of the disputed doctrines—he would be in a state of ceaseless wavering. Today it would seem convincing to him that the human will is *free*; tomorrow, considering the indissoluble chain of nature, he would hold that freedom is nothing but self-deception, and that everything is merely *nature*. But if it came to doing and acting, this play of merely speculative reason would vanish like the phantoms of a dream, and he would choose his principles merely according to the practical interest. [330] Yet since it befits a reflective and inquiring being to devote certain times solely to examining its own reason, while wholly putting aside all partiality, and so to communicate its observations publicly for others to judge, no one can be blamed, still less prevented, for letting the theses and antitheses come forward, just as they can defend themselves, frightened by no threat, before a jury of one's own station (namely the station of weak human beings).

SECTION 4. THE TRANSCENDENTAL PROBLEMS OF PURE REASON THAT MUST BE SOLUBLE

Kant argues that the cosmological questions must be answerable, since their object lies only in our ideas.

To want to solve all problems and answer all questions would be shameless boasting and so boundless a self-conceit that one would immediately forfeit all trust. Nevertheless, there are sciences whose nature entails that every question arising within them must be absolutely answerable from what one knows, because the answer must spring from the same sources as the question. In them it is by no means permitted to plead unavoidable ignorance; the solution can be demanded. What is *right* or *wrong* in all possible cases one must, as a rule, be able to know, because it concerns our obligation, and we have no obligation toward *what we cannot know*. In explaining the appearances of nature, however, much must remain uncertain for us and many

a question insoluble, because what we know of nature is by no means sufficient in every case for what we are supposed to explain. The question now is whether in transcendental philosophy there is any question concerning an object presented to reason that is unanswerable by this same pure reason; and whether one can rightly evade answering it decisively by counting it as absolutely uncertain (on the basis of everything [331] that we can cognize), as belonging among those things of which we have enough of a concept to raise a question, but wholly lack the means or the faculty ever to answer it.

Now I assert that transcendental philosophy has this peculiarity among all speculative cognition: no question concerning an object given to pure reason is insoluble for this same human reason, and no plea of unavoidable ignorance and of the unfathomable depth of the problem can release us from the obligation to answer it thoroughly and completely. For the very concept that puts us in a position to ask the question must also make us fully competent to answer it, since the object is not met with at all outside the concept (as with right and wrong).

In transcendental philosophy, however, the only questions for which one can rightly demand a satisfactory answer concerning the constitution of the object, without the philosopher being permitted to evade them by pleading impenetrable obscurity, are the cosmological ones; and these questions can concern only cosmological ideas. For the object must be given empirically, and the question concerns only its conformity with an idea. If the object is transcendental and therefore itself unknown—for example, whether the something whose appearance (in ourselves) is thinking (the soul) is in itself a simple being, whether there is a cause of all things taken together that is absolutely necessary, and so forth—then we are to seek an object for our idea, one that we may admit to be unknown to us,

though not for that reason impossible.[33] The cosmological ideas alone have the peculiarity [332] that they can presuppose their object, and the empirical synthesis required for its concept, as given. The question that arises from them concerns only the progress of this synthesis, insofar as it is to contain absolute totality; and absolute totality is no longer anything empirical, since it cannot be given in any experience. Now since we are speaking here solely of a thing as an object of possible experience, and not as a thing in itself, the answer to the transcendent cosmological question can lie nowhere but in the idea. For it concerns no object in itself; and with regard to possible experience, what is asked about is not what can be given *in concreto* in some experience, but what lies in the idea, which the empirical synthesis is merely supposed to approach. So the question must be soluble from the idea alone. For the idea is a mere creature of reason, and reason therefore cannot disclaim responsibility and shift it onto the unknown object.

It is not as extraordinary as it at first seems that a science should be able to demand and expect nothing but *certain* solutions to all the questions belonging within its compass (*quaestiones domesticae*), even though these solutions may perhaps not yet have been found. Besides transcendental philosophy there are two further pure sciences of reason, one merely speculative in content, the other practical: *pure mathematics* and *pure morals*. Has anyone ever heard it claimed that, as it were because of a necessary ignorance of the conditions, it is uncertain what exact

33 KANT'S NOTE. To the question of what the constitution of a transcendental object is—namely, *what it is*—no answer can indeed be given; but one can answer that the *question* itself *is nothing*, because no object of it has been given. Hence all the questions of the transcendental doctrine of the soul are also answerable, and have actually been answered. For they concern the transcendental subject of all inner appearances, which is not itself an appearance and so is not *given* as an object, and in which none of the categories (and it is really to them that the question is directed) meets with the conditions of its application. Here, then, is a case where the common saying holds that no answer is also an answer: namely, that a question about the constitution of that something which cannot be thought through any determinate predicate —because it is placed wholly outside the sphere of the objects that can be given to us—is entirely null and empty.

ratio the diameter bears to the circle in rational or irrational numbers?[34] Since it cannot be given congruently by rational numbers at all, and has not yet been found by irrational ones, it was judged that at least the impossibility of such a solution could be cognized with certainty, and Lambert gave a proof of this. In the universal principles of morals nothing can be uncertain, because the propositions are either altogether null and meaningless or must flow merely from our concepts of reason.[35] In natural science, by contrast, there is an infinity of conjectures with regard to which certainty can never be expected, [333] because natural appearances are objects given to us independently of our concepts. The key to them therefore lies not in us and our pure thinking but outside us, and for that very reason in many cases it cannot be found, so that no sure explanation can be expected. I do not count here the questions of the Transcendental Analytic that concern the deduction of our pure cognition, because we are now dealing only with the certainty of judgments with respect to objects, and not with respect to the origin of our concepts themselves.

We shall therefore not be able to evade the obligation of at least a critical solution of the questions of reason before us by complaining about the narrow limits of our reason and confessing, with an air of humble self-knowledge, that it is beyond our reason to decide whether the world has existed from eternity or has a beginning; whether cosmic space is filled with beings to infinity or enclosed within certain boundaries; whether anything in the world is simple or everything must be divided to infinity; whether there is generation and production from freedom or everything hangs on the chain of the natural order; and finally, whether there is some wholly unconditioned being, necessary in itself, or whether everything is conditioned in its existence and hence externally dependent and contingent in

34 *Quaestiones domesticae* (Latin): "domestic questions," those that belong to a science's own household.

35 Johann Heinrich Lambert (1728–1777), Swiss-German mathematician and philosopher, who proved in 1761 (published 1768) that the ratio π is irrational.

itself. For all these questions concern an object that can be given nowhere but in our thoughts: namely, the absolutely unconditioned totality of the synthesis of appearances. If we cannot say or decide anything certain about it from our own concepts, we must not lay the blame on the thing, as if it were hiding from us. For no such thing can be given to us at all (since it is met with nowhere outside our idea). Instead we must seek the cause in our idea itself, which is a problem that admits of no solution, and yet one that we stubbornly assume to have an actual object corresponding to it. A clear exposition of the dialectic that lies in our concept itself would soon bring us to complete certainty about what we have to judge regarding such a question.

To your pretext of uncertainty about these problems one can first oppose this question, which you must at least answer clearly: Where do you get the ideas whose solution entangles you here in such difficulty? Are they perhaps appearances [334] that you need to explain, and for which, following these ideas, you have only to seek the principles or the rule of their exposition? Suppose nature were wholly laid open before you; suppose nothing were hidden from your senses and from your consciousness of everything presented to your intuition. Even so, you would not be able to cognize the object of your ideas *in concreto* through any single experience. (For besides this complete intuition, that would require a completed synthesis and the consciousness of its absolute totality, which is not possible through any empirical cognition at all.) Consequently your question cannot possibly be necessary for explaining any appearance that occurs, and so cannot have been, as it were, set by the object itself. For the object can never occur to you, since it cannot be given through any possible experience. With all possible perceptions you always remain caught among *conditions*, whether in space or in time, and you never arrive at anything unconditioned, so as to decide whether this unconditioned is to be placed in an absolute beginning of the synthesis or in an absolute totality of the series without any beginning. But the all, in its empirical meaning, is always only comparative. The absolute

all of magnitude (the universe), of division, of derivation, of the condition of existence in general—together with all the questions whether it is to be achieved through a finite synthesis or one to be continued to infinity—is of no concern to any possible experience. You would not, for example, be able to explain the appearances of a body the least bit better, or even just differently, whether you assumed it to consist of simple parts or of parts that are always composite throughout. For no simple appearance, and just as little an infinite composition, can ever occur to you. Appearances require explanation only so far as the conditions of their explanation are given in perception; but everything that may ever be given in them, taken together in an *absolute whole*, is not itself a perception. Yet it is precisely this all whose explanation is demanded in the transcendental problems of reason.

Since, then, even the solution of these problems can never occur in experience, you cannot say that it is uncertain what should be ascribed to the object in this regard. For your object is merely in your brain and cannot be given outside it at all. So you have only to take care to agree with yourselves, and to guard against the amphiboly that turns your idea into a supposed representation [335] of an object that is empirically given and therefore also to be cognized according to laws of experience. The dogmatic solution, then, is not uncertain but impossible. The critical solution, however, which can be completely certain, does not consider the question objectively at all, but according to the foundation of the cognition on which it is based.

SECTION 5. SKEPTICAL PRESENTATION OF THE COSMOLOGICAL QUESTIONS

Each answer to each question proves too large or too small for the understanding.

We would gladly give up the demand to see our questions answered dogmatically if we understood in advance that, however the answer might turn out, it would only increase our ignorance, plunging us from one incomprehensibility into

another, from one obscurity into a still greater one, and perhaps even into contradictions. If our question is posed simply for a yes or a no, it is prudent to leave aside for the moment the presumed grounds for the answer, and first to consider what we would gain if the answer came out on the one side, and what if it came out on the opposite side. Now if it turns out that in both cases nothing but empty meaninglessness (*nonsense*) results, then we have a well-founded call to examine our question itself critically, and to see whether it does not itself rest on a groundless presupposition and play with an idea that betrays its falsity better in its application and through its consequences than in its isolated representation. This is the great utility of the skeptical way of treating the questions that pure reason puts to pure reason. By it one can be spared a great heap of dogmatic rubbish at little cost, and put in its place a sober critique, which, as a true cathartic, will happily purge delusion along with its retinue, know-it-all learning.

Suppose, then, that I could see in advance, concerning a cosmological idea, that whichever side of the unconditioned in the regressive synthesis [336] of appearances it came down on, it would still be either *too large* or *too small* for every *concept of the understanding*. Then I would comprehend that, since the idea has to do only with an object of experience, which is supposed to be adequate to a possible concept of the understanding, it must be wholly empty and without meaning, because the object does not fit it, however I try to accommodate the one to the other. And this is actually the case with all world-concepts, which for this very reason entangle reason, so long as it clings to them, in an unavoidable antinomy. For assume

first that the *world has no beginning*: then it is *too large* for your concept. For your concept, which consists in a successive regress, can never reach the whole eternity that has elapsed. Suppose it *has a beginning*: then it is in turn *too small* for your concept of the understanding in the necessary empirical regress. For since the beginning still presupposes a time that precedes it, it is still not unconditioned, and the law of the

empirical use of the understanding obliges you to ask for a still higher temporal condition; so the world is plainly too small for this law.

It is the same with the double answer to the question about the magnitude of the world in space. For if it is *infinite* and unbounded, it is *too large* for every possible empirical concept. If it is *finite* and bounded, you rightly ask further: what determines this boundary? Empty space is not a self-subsistent correlate of things and cannot be a condition at which you could stop —still less an empirical condition forming part of a possible experience. (For who can have an experience of the absolutely empty?) Yet absolute totality of the empirical synthesis always requires that the unconditioned be a concept of experience. So a *bounded world* is *too small* for your concept.

Second, if every appearance in space (matter) consists of *infinitely many parts*, then the regress of division is always *too large* for your concept; and if the *division* of space is to *stop* at some member of it (the simple), then the regress is *too small* for the idea of the unconditioned. For this member still always leaves room for a regress to further parts contained in it.

Third, if you assume that in everything that happens in the world there is nothing but a sequel according to laws of *nature*, then the causality of the cause [337] is always in turn something that happens, which makes necessary your regress to a still higher cause, and hence the extension of the series of conditions *a parte priori* without end. Mere efficient *nature* is thus *too large* for any concept of yours in the synthesis of world events.

If you choose events brought about *of themselves* here and there, and hence generation from *freedom*, then the question "why?" pursues you according to an unavoidable law of nature and compels you to go beyond this point in accordance with the causal law of experience; and you find that such a totality of connection is *too small* for your necessary empirical concept.

Fourth. If you assume an *absolutely necessary* being (whether it be the world itself, or something in the world, or the cause of the world), then you place it in a time infinitely remote from

every given point in time, since otherwise it would be dependent on another and older existence. But then this existence is inaccessible to your empirical concept, and *too large* for you ever to reach it through any continued regress.

But if in your opinion everything belonging to the world (whether as conditioned or as condition) is *contingent*, then every existence given to you is *too small* for your concept. For it compels you always to look around for yet another existence on which it depends.

In all these cases we have said that the *world-idea* is either too large for the empirical regress, and hence for every possible concept of the understanding, or else too small for it. Why did we not express ourselves the other way round, and say that in the first case the empirical concept is always too small for the idea, and in the second too large, so that the fault would, as it were, lie with the empirical regress—instead of accusing the cosmological idea of deviating from its end, namely possible experience, by too much or too little? The reason was this. Possible experience is what alone can give our concepts reality; without it every concept is only an idea, without truth and without relation to an object. Hence the possible empirical concept was the standard by which the idea had to be judged: whether it is a mere idea and thought-entity, or finds its object in the world. For one says that something is too large or too small relative to something else only when it is assumed merely [338] for the sake of that other thing and must be fitted to it. Among the playthings of the old dialectical schools was this question too: if a ball will not go through a hole, what should one say—is the ball too large, or the hole too small? In this case it does not matter how you choose to express yourself, for you do not know which of the two exists for the sake of the other. But you will not say that the man is too tall for his coat; rather, the coat is too short for the man.

We have thus at least been brought to the well-founded suspicion that the cosmological ideas, and with them all the sophistical assertions set in conflict with one another, perhaps have at

their basis an empty and merely imagined concept of the way the object of these ideas is given to us. And this suspicion can already set us on the right track for uncovering the deception that has led us astray for so long.

SECTION 6. TRANSCENDENTAL IDEALISM AS THE KEY TO SOLVING THE COSMOLOGICAL DIALECTIC

Objects of experience are appearances, given only in the progress of experience, not in themselves.

We have sufficiently proved in the Transcendental Aesthetic that everything intuited in space or in time, and hence all objects of an experience possible for us, are nothing but appearances, that is, mere representations, which, in the way they are represented —as extended beings or series of alterations—have no existence grounded in itself outside our thoughts. This doctrine I call *transcendental idealism*.[36] The realist in the transcendental [339] sense makes these modifications of our sensibility into things subsisting in themselves, and hence makes *mere representations* into things in themselves.

We would be done an injustice if anyone tried to saddle us with the empirical idealism that has long been so notorious: the kind that assumes the proper actuality of space but denies the existence of extended beings in it, or at least finds it doubtful, and in this respect admits no sufficiently provable difference between dream and truth. As for the appearances of inner sense in time, it finds no difficulty in taking them as actual things; indeed, it even asserts that this inner experience alone sufficiently proves the actual existence of its object (in itself, with all this time-determination).

Our transcendental idealism, on the contrary, allows that the objects of outer intuition, just as they are intuited in space, are

36 KANT'S NOTE. I have also sometimes called it *formal* idealism, in order to distinguish it from *material* idealism, that is, the common kind, which doubts or denies the existence of external things themselves. In some cases it seems advisable to use these expressions rather than the one above, so as to prevent any misinterpretation.

also actual, and likewise all alterations in time, just as inner sense represents them. For since space is already a form of the intuition we call outer, and without objects in space there would be no empirical representation at all, we can and must assume extended beings in it as actual; and it is the same with time as well. But this space itself, together with this time, and with both of them all appearances, are nevertheless not *things* in themselves; they are nothing but representations and cannot exist at all outside our mind. Even the inner and sensible intuition of our mind (as object of consciousness), whose determination is represented through the succession of different states in time, is not the real self as it exists in itself, or the transcendental subject, but only an appearance given to the sensibility of this being unknown to us. The existence of this inner appearance as a thing existing in itself in this way cannot be admitted, because its condition is time, which cannot be a determination of any thing in itself. But in space and time the empirical truth of appearances is sufficiently secured, and sufficiently distinguished from its kinship with dreams, if both hang together correctly and thoroughly in one experience according to empirical laws.

Accordingly, the objects of experience are *never* given *in* [340] *themselves*, but only in experience, and they do not exist at all outside it. That there could be inhabitants of the moon, even though no human being has ever perceived them, must certainly be admitted; but this means only that in the possible progress of experience we could come upon them. For everything is actual that stands in one context with a perception according to the laws of the empirical advance. They are therefore actual when they stand in an empirical connection with my actual consciousness, even though they are not for that reason actual in themselves, that is, outside this progress of experience.

Nothing is actually given to us but perception and the empirical progress from it to other possible perceptions. For in themselves appearances, as mere representations, are actual only in perception, which is in fact nothing but the actuality of an

empirical representation, that is, appearance. To call an appearance an actual thing prior to perception means either that in the course of experience we must come upon such a perception, or it means nothing at all. For that it exists in itself, without relation to our senses and possible experience, could certainly be said if we were speaking of a thing in itself. But we are speaking merely of an appearance in space and time, neither of which is a determination of things in themselves, but only of our sensibility. Hence what is in them (appearances) is not something in itself, but mere representations, which, if they are not given in us (in perception), are met with nowhere at all.

The faculty of sensible intuition is really only a receptivity, a capacity to be affected in a certain way with representations. Their relation to one another is a pure intuition of space and time (mere forms of our sensibility); and insofar as they are connected and determinable in this relation (space and time) according to laws of the unity of experience, these representations are called *objects*. The non-sensible cause of these representations is entirely unknown to us, and therefore we cannot intuit it as an object. For such an object would have to be represented neither in space nor in time (as mere conditions of sensible representation), and without these conditions we cannot think any intuition at all. Nonetheless, we can call the [341] merely intelligible cause of appearances in general the transcendental object, simply so that we have something corresponding to sensibility as a receptivity. To this transcendental object we can ascribe the whole extent and connection of our possible perceptions, and say that it is given in itself prior to all experience. But the appearances, in conformity with it, are given not in themselves but only in this experience, because they are mere representations, which signify an actual object only as perceptions—namely, when this perception hangs together with all others according to the rules of the unity of experience. Thus one can say: the actual things of past time are given in the transcendental object of experience; but for me they are objects, and actual in past time, only insofar as I represent to myself that a

regressive series of possible perceptions according to empirical laws (whether following the guiding thread of history or the footsteps of causes and effects)—in a word, the course of the world—leads to an elapsed time-series as the condition of the present time. This series is then represented as actual only in the connection of a possible experience, and not in itself. So all the events that elapsed from time immemorial before my existence signify nothing other than the possibility of extending the chain of experience from the present perception upward to the conditions that determine this perception in time.

Accordingly, if I represent to myself all existing objects of the senses in all time and all spaces taken together, I do not place them into both prior to experience. Rather, this representation is nothing but the thought of a possible experience in its absolute completeness. In it alone are those objects (which are nothing but mere representations) given. But to say that they exist prior to all my experience means only that they are to be met with in the part of experience *to which* I, starting from perception, must first advance. The cause of the empirical conditions of this advance—and hence which members I might come upon in the regress, or how far I might do so—is transcendental, and therefore necessarily unknown to me. But that is not what matters here; what matters is only the rule of the advance of experience, in which objects, namely appearances, are given to me. And in the end it is all [342] the same whether I say that in the empirical progress in space I could come upon stars a hundred times farther away than the outermost ones I see, or whether I say that such stars are perhaps to be met with in cosmic space even though no human being has ever perceived them or ever will. For even if they were given as things in themselves, without relation to possible experience in general, they are still nothing for me, and hence no objects, except insofar as they are contained in the series of the empirical regress. Only in another connection—when these same appearances are to be used for the cosmological idea of an absolute whole, and so when a question is at issue that goes beyond the boundaries of possible

experience—does the distinction in how one takes the actuality of those objects of the senses become important, in order to guard against a deceptive delusion that must inevitably arise from misinterpreting our own concepts of experience.

SECTION 7. CRITICAL DECISION OF REASON'S COSMOLOGICAL CONFLICT WITH ITSELF

The antinomy rests on an equivocation; since the world is no thing in itself, both sides may be false.

The whole antinomy of pure reason rests on this dialectical argument: If the conditioned is given, then the whole series of all its conditions is also given; now objects of the senses are given to us as conditioned; therefore, etc. Through this syllogism, whose major premise seems so natural and evident, as many cosmological ideas are introduced as there are different conditions (in the synthesis of appearances) insofar as they make up a series. These ideas postulate the absolute totality of these series, and precisely by doing so they inevitably set reason in conflict with itself. But before we uncover what is deceptive in this sophistical argument, we must put ourselves in a position to do so by correcting and determining certain concepts that occur in it.

First, the following proposition is clear and indubitably certain: if the conditioned is given, then by that very fact a regress in the series [343] of all its conditions is *set for us as a task*. For the very concept of the conditioned already implies that through it something is related to a condition, and, if this condition is conditioned in turn, to a more remote condition, and so on through all the members of the series. This proposition is therefore analytic and beyond all fear of a transcendental critique. It is a logical postulate of reason: to follow up, through the understanding, that connection of a concept with its conditions which

already attaches to the concept itself, and to continue it as far as possible.[37]

Further: if the conditioned as well as its condition are things in themselves, then when the former has been given, not only is the regress to the latter *set as a task*, but the latter is thereby actually already *given* along with it. And since this holds of all members of the series, the complete series of conditions, and hence also the unconditioned, is thereby given at the same time —or rather, it is presupposed by the fact that the conditioned, which was possible only through that series, is given. Here the synthesis of the conditioned with its condition is a synthesis of the mere understanding, which represents things *as they are*, without considering whether and how we can arrive at knowledge of them. If, on the other hand, I am dealing with appearances, which as mere representations are not given at all unless I attain cognition of them (that is, attain them themselves, for they are nothing but empirical cognitions), then I cannot say in the same sense that if the conditioned is given, all its conditions (as appearances) are also given; and so I can by no means infer the absolute totality of their series. For *appearances* are, in apprehension itself, nothing but an empirical synthesis (in space and time), and so are given only *in this synthesis*. Now it does not follow at all that if the conditioned (in appearance) is given, the synthesis that makes up its empirical condition is thereby given along with it and presupposed. On the contrary, this synthesis takes place only in the regress, and never without it. What one can indeed say in such a case is that a *regress* to the conditions, that is, a continued empirical synthesis on this side, is commanded or *set as a task*, and that there cannot fail to be conditions given through this regress.

From this it is clear that the major premise of the cosmological syllogism takes the conditioned [344] in the transcendental sense of a pure category, while the minor premise takes it in the empirical sense of a concept of the understanding applied to

37 Kant plays on *aufgegeben* ("set as a task") against *gegeben* ("given"); this contrast carries the resolution of the antinomy that follows.

mere appearances. Consequently, we find in it the dialectical fraud called *sophisma figurae dictionis*. This fraud, however, is not contrived; it is an entirely natural deception of common reason. For through it we presuppose (in the major premise) the conditions and their series, as it were *sight unseen*, whenever something is given as conditioned, because this is nothing but the logical demand to assume complete premises for a given conclusion. And in the connection of the conditioned with its condition there is no temporal order to be found: they are presupposed as given in themselves *simultaneously*.[38] Further, it is just as natural (in the minor premise) to regard appearances as things in themselves, and likewise as objects given to the mere understanding, as happened in the major premise, where I abstracted from all conditions of intuition under which alone objects can be given. But in doing so we had overlooked a remarkable difference between the concepts. The synthesis of the conditioned with its condition, and the whole series of the latter (in the major premise), carried with it no limitation by time and no concept of succession. The empirical synthesis, by contrast, and the series of conditions in appearance (which is subsumed in the minor premise), is necessarily successive, given only in time, one after another. Consequently I could not presuppose here, as I could there, the absolute *totality* of the synthesis and of the series represented by it. For there all the members of the series are given in themselves (without any condition of time), whereas here they are possible only through the successive regress, which is given only by one's actually carrying it out.

Once such a misstep in the argument that both sides laid at the basis (of their cosmological assertions) has been exposed, both disputing parties can rightly be dismissed as people who base their claim on no sound title. But this does not yet end their quarrel to the extent of convicting them, or one of them, of being wrong in the very thing he asserts (in the conclusion),

38 *Sophisma figurae dictionis* (Latin): "sophism of the figure of speech," the fallacy of shifting a term's meaning between premises.

even if he did not know how to build it on valid grounds of proof. Surely nothing seems clearer than that of two people, one of whom asserts "the world has a beginning" and the other "the
345 world has no beginning but has existed from eternity," one must be right. But if so, then, because the clarity is equal on both sides, it is impossible ever to settle which side is right; and the dispute goes on as before, even if the parties have been ordered by the court of reason to keep the peace. So there remains no way to end the dispute thoroughly and to the satisfaction of both parties except this: since they can refute each other so beautifully, they must finally be convinced that they are disputing about nothing, and that a certain transcendental illusion has painted for them an actuality where none is to be found. This is the path we will now take toward settling a dispute that cannot be adjudicated.

ZENO AND DIALECTICAL OPPOSITION

Kant distinguishes contradictory from dialectical opposition, where both judgments can be false.

Zeno of Elea, a subtle dialectician, was sharply rebuked by Plato as a mischievous sophist because, to show off his skill, he sought to prove a proposition by plausible arguments and soon afterward to overturn the same proposition by other arguments just as strong. He asserted that God (for him this was probably nothing but the world) is neither finite nor infinite, neither in motion nor at rest, neither like nor unlike any other thing. To those who judged him on this, it seemed that he wanted to deny outright two mutually contradictory propositions, which is absurd. But I do not find that this can rightly be laid to his charge. The first of these propositions I shall examine more closely soon.[39] As for the others: if by the word *God* he understood the universe, then

39 Zeno of Elea (5th century BC), famous for his paradoxes of motion. The views Kant ascribes to him match those given to Xenophanes in the pseudo-Aristotelian *On Melissus, Xenophanes and Gorgias*; Plato (*Phaedrus* 261d) calls Zeno the "Eleatic Palamedes," who makes the same things seem like and unlike, at rest and in motion.

he certainly had to say that it neither remains persistently present in its place (at rest) nor changes that place (moves), because all places are only in the universe, and so *the universe* itself is *in no place*. If the world-whole contains within itself everything that exists, then it is also, to that extent, neither like nor unlike any *other thing*, because there is *no other thing* outside it with which it could be compared. If two opposed judgments presuppose an inadmissible condition, then, despite their conflict (which is nonetheless not a real contradiction), both of them fall away, because the condition under which alone each of these propositions was supposed to hold falls away.

346 If someone said that every body either smells good or smells not good, there is a third possibility, namely that it has no smell (gives off no scent) at all; and so both conflicting propositions can be false. If I say that it is either sweet-smelling or not sweet-smelling (*vel suaveolens vel non suaveolens*), then the two judgments are contradictorily opposed, and only the first is false, while its contradictory opposite—namely, some bodies are not sweet-smelling—also includes the bodies *that have no smell at all*. In the former opposition (*per disparata*), the contingent condition of the concept of bodies (smell) *remained* in the conflicting judgment and so was not canceled along with it; that is why the latter was not the contradictory opposite of the former.[40]

Accordingly, if I say that the world is either infinite in space or is not infinite (*non est infinitus*), then if the first proposition is false, its contradictory opposite, "the world is not infinite," must be true. By this I would merely cancel an infinite world, without positing another, namely a finite one. But if it were said that the world is either infinite or finite (non-infinite), then both could be false.[41] For in that case I regard the world as determined in itself with respect to its magnitude, since in the opposed proposition I do not merely cancel the infinity, and with it perhaps the world's entire separate existence, but add a determination to the

40 *Vel suaveolens vel non suaveolens* (Latin): "either sweet-smelling or not sweet-smelling"; *per disparata*: "by way of disparate terms."
41 *Non est infinitus* (Latin): "it is not infinite."

world as a thing actual in itself. And this can just as well be false —namely, if the world should *not be given as a thing in itself at all*, and so not as either infinite or finite in its magnitude. Allow me to call this kind of opposition *dialectical*, and the opposition of contradiction *analytic opposition*. Thus of two judgments dialectically opposed to each other, both can be false, because the one does not merely contradict the other but says something more than is required for a contradiction.

If we regard the two propositions "the world is infinite in magnitude" and "the world is finite in magnitude" as contradictory opposites, we assume that the world (the whole series of appearances) is a thing in itself. For it remains, whether I cancel the infinite or the finite regress in the series of its appearances. But if I remove this presupposition, or this transcendental illusion, and deny that the world is a thing in itself, then [347] the contradictory conflict of the two assertions is transformed into a merely dialectical one. And because the world does not exist in itself at all (independently of the regressive series of my representations), it exists neither as *a whole infinite in itself* nor as *a whole finite in itself*. It is to be found only in the empirical regress of the series of appearances, and not at all on its own. Hence if this series is always conditioned, it is never given as a whole; and so the world is not an unconditioned whole, and therefore does not exist as one either, with either infinite or finite magnitude.

What has been said here of the first cosmological idea, namely the absolute totality of magnitude in appearance, holds for all the others as well. The series of conditions is to be found only in the regressive synthesis itself, not in appearance in itself, as if appearance were a thing of its own given before any regress. Hence I shall also have to say that the multitude of parts in a given appearance is in itself neither finite nor infinite. For appearance is nothing existing in itself, and the parts are given only through the regress of the decomposing synthesis, and in it; and this regress is never given absolutely *as a whole*, either as finite or as infinite. The same holds of the series of causes

ordered one above another, or of the series from conditioned existence up to unconditionally necessary existence. This series can never be regarded, in itself and in its totality, as either finite or infinite, because as a series of subordinated representations it consists only in the dynamical regress; before that regress, and as a self-subsistent series of things in themselves, it cannot exist at all.

In this way, then, the antinomy of pure reason in its cosmological ideas is removed: by showing that it is merely dialectical, a conflict due to an illusion that arises because the idea of absolute totality, which holds only as a condition of things in themselves, has been applied to appearances, which exist only in representation and—when they make up a series—in the successive regress, but otherwise not at all. Conversely, however, we can also draw from this antinomy a real benefit, not dogmatic but critical and doctrinal: namely, to prove indirectly the transcendental ideality of appearances, in case anyone was [348] not satisfied with the direct proof in the Transcendental Aesthetic. The proof would consist in this dilemma. If the world is a whole existing in itself, then it is either finite or infinite. Now the first is false, and so is the second (according to the proofs given above, of the Antithesis on the one side and of the Thesis on the other). So it is also false that the world (the sum total of all appearances) is a whole existing in itself. From which it follows that appearances in general are nothing outside our representations—which is exactly what we meant by their transcendental ideality.

This remark is important. It shows that the above proofs of the fourfold antinomy were not deceptions but sound—on the presupposition, namely, that appearances, or a sensible world that comprises them all, were things in themselves. But the conflict of the propositions drawn from them reveals that there is a falsehood in the presupposition, and so leads us to discover the true constitution of things as objects of the senses. Transcendental dialectic, therefore, by no means lends any support to skepticism; but it does support the skeptical method, which can point to it as an example of its great usefulness. This is when the

arguments of reason are allowed to confront one another in their fullest freedom: even if in the end they do not yield what one was looking for, they will always yield something useful and serviceable for correcting our judgments.

SECTION 8. THE REGULATIVE PRINCIPLE OF PURE REASON FOR THE COSMOLOGICAL IDEAS

The principle of totality is only a rule for continuing the regress, not a claim about objects.

Through the cosmological principle of totality, no maximum of the series of conditions in a sensible world, as a thing in itself, is *given*; it can only be *set as a task* in the regress of that series. So the principle of pure reason in question, in its meaning thus corrected, still retains its proper validity—not, indeed, as an *axiom* for thinking the totality in the object as actual, [349] but as a *problem* for the understanding, and hence for the subject: namely, to undertake and continue the regress in the series of conditions for a given conditioned, in accordance with the completeness in the idea. For in sensibility, that is, in space and time, every condition we can reach in the exposition of given appearances is in turn conditioned. This is because appearances are not objects in themselves, in which the absolutely unconditioned might possibly occur, but merely empirical representations, which must always find their condition in intuition, the condition that determines them in space or time. The principle of reason, therefore, is properly only a *rule*, prescribing a regress in the series of conditions of given appearances, a regress that is never allowed to stop at something absolutely unconditioned. It is therefore not a principle of the possibility of experience and of the empirical cognition of objects of the senses, and hence not a principle of the understanding, for every experience is enclosed within its boundaries (in accordance with the given intuition). Nor is it a *constitutive principle* of reason for extending the concept of the sensible world beyond all possible experience. It is rather a principle of the greatest possible continuation and extension of experience, according to which no empirical

boundary may count as an absolute boundary. It is thus a principle of reason which, *as a rule*, postulates what we are to do in the regress, and *does not anticipate* what is given in itself *in the object* before any regress. That is why I call it a *regulative* principle of reason. By contrast, the principle of the absolute totality of the series of conditions, as given in itself in the object (in appearances), would be a constitutive cosmological principle. Its nullity is precisely what I wanted to show by this distinction, and thereby to prevent what otherwise unavoidably happens (through transcendental subreption): ascribing objective reality to an idea that serves merely as a rule.

Now, to determine the sense of this rule of pure reason properly, we must first note that it cannot say *what the object is*, but only *how the empirical regress is to be undertaken* in order to arrive at the complete concept of the object. For if it did the former, it would be a constitutive principle, and such a principle is never possible from pure reason. So we can by no means intend by it to say that the series of conditions [350] for a given conditioned is in itself finite or infinite. For then a mere idea of absolute totality, created solely in the idea itself, would be thinking an object that cannot be given in any experience, since a series of appearances would be granted an objective reality independent of the empirical synthesis. The idea of reason will therefore only prescribe a rule to the regressive synthesis in the series of conditions, according to which it proceeds from the conditioned, by means of all the conditions subordinated to one another, toward the unconditioned—though this is never reached. For the absolutely unconditioned is not encountered in experience at all.

To this end we must first determine precisely the synthesis of a series insofar as it is never complete. For this purpose two expressions are commonly used that are supposed to distinguish something, though no one really knows how to state the ground of this distinction. Mathematicians speak only of a *progressus in infinitum*. Those who investigate concepts (philosophers) will accept in its place only the expression *progressus in indefinitum*. Without pausing to examine the scruple that recom-

mended such a distinction to them, or whether it has been put to good or fruitless use, I shall try to determine these concepts precisely with respect to my own purpose.[42]

Of a straight line one can rightly say that it can be extended to infinity, and here the distinction between an infinite progress and one extending an undeterminable distance (*progressus in indefinitum*) would be an empty subtlety. True, when someone says "draw a line onward," it is admittedly more correct to add *in indefinitum* than *in infinitum*, because the first means no more than "extend it as far as you *like*," while the second means "you *must* never stop extending it" (which is not at all the intent here). Still, when the talk is only of what one *can* do, the first expression is entirely correct; for you can make it ever larger to infinity. And so it is in all cases where one speaks only of the progress, that is, the advance from the condition to the conditioned: this possible advance proceeds in the series of appearances to infinity. From a pair of parents you can go on without end in the descending line of generation, and you can quite well think that it actually goes on like that in the world. For here reason never needs the absolute totality [351] of the series, because it does not presuppose that totality as a condition and as given (*datum*), but only as something conditioned, which is merely capable of being given (*dabile*) and is added without end.

It is quite otherwise with the question of how far the regress extends that ascends in a series from the given conditioned to the conditions. Can I say that it is *a regress to infinity*, or only a regress extending *an undeterminable distance* (*in indefinitum*)? Can I therefore ascend from human beings now living through the series of their ancestors to infinity? Or can it only be said that, however far back I have gone, no empirical ground is ever found for holding the series to be bounded anywhere, so that I am entitled, and at the same time obliged, to search for the ancestor of each forefather in turn—though not to presuppose him?

42 *Progressus in infinitum* / *in indefinitum* (Latin): "progress to infinity" / "progress to the indefinite," i.e., to an undeterminable extent.

I say, therefore: if the whole has been given in empirical intuition, then the regress in the series of its inner conditions goes to infinity. But if only one member of the series is given, from which the regress is first to proceed to absolute totality, then there is only a regress to an undetermined extent (*in indefinitum*). Thus of the division of a matter given between its boundaries (a body), it must be said that it goes to infinity. For this matter is given whole in empirical intuition, and consequently with all its possible parts. Now the condition of this whole is its part, and the condition of this part is the part of the part, and so on; and in this regress of decomposition no unconditioned (indivisible) member of this series of conditions is ever encountered. Hence not only is there nowhere an empirical ground for stopping the division, but the further members of the division still to be continued are themselves empirically given before this further division; that is, the division goes to infinity. The series of ancestors of a given human being, on the other hand, is not given in its absolute totality in any possible experience. Yet the regress still proceeds from each member of this line of descent to a higher one, so that no empirical boundary is to be found that would present one member as absolutely unconditioned. But since the members that might furnish the condition for this likewise do not already lie in the empirical intuition of the whole before the regress, the regress does not go to infinity (as in the division of what is given), but [352] an undeterminable distance, searching for more members beyond the given ones—members that in turn are always given only as conditioned.

In neither of the two cases—the *regressus in infinitum* or the *regressus in indefinitum*—is the series of conditions regarded as given in the object as infinite. They are not things in themselves, but only appearances, which as conditions of one another are given only in the regress itself. So the question is no longer how large this series of conditions is in itself, whether finite or infinite, for it is nothing in itself. The question is rather how we are to undertake the empirical regress, and how far we are to continue it. And here there is a notable difference with respect to

the rule of this advance. If the whole has been given empirically, then it is possible to go back *to infinity* in the series of its inner conditions. But if the whole is not given, and is first to be given through empirical regress, then I can only say that it is *possible to infinity* to proceed to still higher conditions of the series. In the first case I could say: there are always more members present and empirically given than I reach through the regress (of decomposition). In the second, however: I can always go still further in the regress, because no member is empirically given as absolutely unconditioned, and so a still higher member always remains possible, and inquiry after it therefore remains necessary. There it was necessary to *find* more members of the series; here, however, it is always necessary to *ask* after more, because no experience is absolutely bounded. For either you have no perception that absolutely bounds your empirical regress, and then you must not regard your regress as completed; or you have such a perception bounding your series, and then it cannot be a part of the series you have traversed (because *what bounds* must be distinct from *what is bounded* by it), and so you must continue your regress to this condition as well, and so on.

The following section will set these remarks in their proper light by applying them.

SECTION 9. THE EMPIRICAL USE OF THE REGULATIVE PRINCIPLE FOR ALL COSMOLOGICAL IDEAS

Kant applies the regulative principle to each of the four cosmological ideas in turn.

353 As we have shown several times, there is no transcendental use either of pure concepts of the understanding or of pure concepts of reason. The absolute totality of the series of conditions in the sensible world rests solely on a transcendental use of reason, which demands this unconditioned completeness from what it presupposes as a thing in itself. But the sensible world contains nothing of the kind. So the question can never again be about the absolute magnitude of the series in that world—

whether they may be bounded or *in themselves* unbounded—but only about how far we are to go back in the empirical regress when tracing experience back to its conditions, so that, following the rule of reason, we stop at no answer to reason's questions other than one appropriate to the object.

What alone remains to us, then, is the *validity of the principle of reason* as a rule for the *continuation* and magnitude of a possible experience, now that its invalidity as a constitutive principle of appearances in themselves has been sufficiently established. And if we can set that validity before our eyes beyond doubt, the conflict of reason with itself is completely ended. For not only has the illusion that divided reason against itself been removed by critical resolution; in its place the sense in which reason agrees with itself—the sense whose misinterpretation alone gave rise to the conflict—has been disclosed, and a principle otherwise *dialectical* has been transformed into a *doctrinal* one. Indeed, if this principle can be vindicated in its subjective meaning—as determining the greatest possible use of the understanding in experience in a way appropriate to its objects—then it is exactly as if it determined the objects in themselves *a priori*, like an axiom (which is impossible from pure reason). For even an axiom could have no greater influence on the extension and correction of our [354] cognition, with respect to objects of experience, than to prove itself active in the most extensive empirical use of our understanding.

I. SOLUTION OF THE IDEA OF THE TOTALITY OF THE COMPOSITION OF THE WORLD

The regress in the magnitude of the world goes on indefinitely; the world is neither finite nor infinite.

Here, as with the other cosmological questions, the ground of the regulative principle of reason is the proposition that in the empirical regress *no experience of an absolute boundary* can be encountered, and hence no experience of any condition as one that is *empirically absolutely unconditioned*. The reason for this, however, is that such an experience would have to contain a

bounding of appearances by nothing, or by the void, which the continued regress could come up against by means of a perception—and that is impossible.

Now this proposition, which says as much as that in the empirical regress I only ever arrive at a condition that must itself in turn be regarded as empirically conditioned, contains *in terminis* the rule that, however far I may have come in the ascending series, I must always ask after a higher member of the series, whether or not it becomes known to me through experience.[43]

Now to resolve the first cosmological problem, nothing more is needed than to settle whether, in the regress to the unconditioned magnitude of the world-whole (in time and space), this never-bounded ascent can be called *a regress to infinity*, or only an *indeterminably continued regress* (*in indefinitum*).

The mere general representation of the series of all past states of the world, and likewise of the things that exist simultaneously in cosmic space, is itself nothing but a possible empirical regress, which I think, though still indeterminately; and it is only through this regress that the concept of such a series of conditions for the given perception can arise [355] .[44] Now I have the world-whole only ever in concept, and by no means (as a whole) in intuition. So I cannot infer from its magnitude to the magnitude of the regress and determine the latter in accordance with the former; instead, I must first form a concept of the magnitude of the world through the magnitude of the empirical regress. Of this regress, however, I never know anything more than that from every given member of the series of conditions I must always proceed empirically to a still higher (more remote) member. So the magnitude of the whole of appearances is

43 *In terminis* (Latin): "in so many words," i.e., explicitly.

44 KANT'S NOTE. So this world-series can be neither greater nor smaller than the possible empirical regress on which alone its concept rests. And since this regress can yield no determinate infinite, but just as little anything determinately finite (absolutely bounded), it is clear that we can assume the magnitude of the world to be neither finite nor infinite, because the regress (through which that magnitude is represented) permits neither.

thereby not absolutely determined at all. Hence one also cannot say that this regress goes to infinity. For that would anticipate the members the regress has not yet reached, and represent their multitude as so great that no empirical synthesis can reach it; consequently it would *determine* the magnitude of the world before the regress (even if only negatively), which is impossible. For the world is not given to me through any intuition (in its totality), and hence its magnitude is not given at all before the regress. Accordingly, we can say nothing at all about the magnitude of the world in itself, not even that a *regressus in infinitum* takes place in it. We must only seek the concept of its magnitude according to the rule that determines the empirical regress in it. This rule, however, says no more than this: however far we may have come in the series of empirical conditions, we are nowhere to assume an absolute boundary, but must subordinate every appearance, as conditioned, to another as its condition, and so must proceed further to this condition. This is the *regressus in indefinitum*, which, because it determines no magnitude in the object, is clearly enough distinguished from the regress *in infinitum*.

Accordingly, I cannot say that the world is *infinite* with respect to past time or to space. For such a concept of magnitude, as a given infinity, is empirically impossible, and hence also absolutely impossible with respect to the world as an object of the senses. Nor will I say that the regress from a given perception [356] to everything that bounds it in a series, in space as well as in past time, goes *to infinity*; for this presupposes an infinite magnitude of the world. Nor will I say that it is *finite*; for an absolute boundary is likewise empirically impossible. Accordingly, I shall be able to say nothing about the whole object of experience (the sensible world), but only about the rule by which experience, appropriately to its object, is to be undertaken and continued.

To the cosmological question about the magnitude of the world, then, the first and negative answer is: the world has no first beginning in time and no outermost boundary in space.

For in the opposite case it would be bounded by empty time on the one side and by empty space on the other. Now since, as appearance, it cannot be either of these in itself—for appearance is not a thing in itself—a perception of its being bounded by absolutely empty time or empty space would have to be possible, through which these ends of the world would be given in a possible experience. But such an experience, as completely empty of content, is impossible. Therefore an absolute boundary of the world is empirically impossible, and hence also absolutely impossible[45].

From this there follows at the same time the *affirmative* answer: the regress in the series of appearances of the world, as a determination of the magnitude of the world, goes *in indefinitum*. This is equivalent to saying that the sensible world has no absolute magnitude, but that the empirical regress (through which alone it can be given on the side of its conditions) has its rule: namely, always to advance from each member of the series, as a conditioned, to a still more remote one (whether through one's own experience, or the guiding thread of history, or the chain of effects and their causes), and never to exempt oneself from extending the possible empirical use [357] of one's understanding. And this is also the proper and only business of reason with its principles.

This does not prescribe any determinate empirical regress that would go on without cease in a certain kind of appearances—for example, that from a living human being one must always ascend in a series of ancestors without expecting a first pair, or in the series of heavenly bodies without admitting an outermost sun. What is commanded is only the advance from appearances to appearances, even if these should furnish no actual percep-

45 KANT'S NOTE. It will be noticed that the proof here has been conducted in an entirely different way from the dogmatic one above, in the Antithesis of the first antinomy. There, following the common and dogmatic way of representing things, we had let the sensible world count as a thing given in itself, in its totality, before any regress; and we had denied that it has any determinate place at all in time and space if it did not occupy all time and all spaces. Hence the conclusion there was also different from the one here: namely, we inferred the world's actual infinity.

tion (when it is too weak in degree for our consciousness to become experience), because they nonetheless belong to possible experience.

All beginning is in time, and every boundary of what is extended is in space. But space and time are only in the sensible world. Hence only appearances *in the world* are conditionally bounded; *the world* itself, however, is bounded neither conditionally nor in an unconditioned way.

Precisely for this reason, and because the world can never be given *as a whole*, and even the series of conditions for a given conditioned *cannot be given as a whole* as a world-series, the concept of the magnitude of the world is given only through the regress, and not before it in a collective intuition. But the regress always consists only in *determining* the magnitude, and so yields no *determinate* concept, and hence no concept of a magnitude that would be infinite with respect to a certain measure. So it does not go to infinity (as if the infinite were given), but to an undetermined extent, so as to give a magnitude (of experience) that first becomes actual through this regress.

II. SOLUTION OF THE IDEA OF THE TOTALITY OF DIVISION OF A GIVEN WHOLE

A body is divisible to infinity, but does not consist of infinitely many parts.

When I divide a whole that is given in intuition, I go from a conditioned to the conditions of its possibility. The division of the parts (*subdivisio* or *decompositio*) is a regress in the series of these conditions. The absolute totality of this *series* [358] would be given only if the regress could arrive at *simple* parts. But if all the parts in a continuously proceeding decomposition are always divisible in turn, then the division, that is, the regress from the conditioned to its conditions, goes *in infinitum*. For the conditions (the parts) are contained in the conditioned itself, and since the conditioned is given whole in an intuition enclosed between its boundaries, they are all given along with it. So the regress may not be called merely a regress *in indefinitum*, as the previous cos-

mological idea alone permitted. There I was to proceed from the conditioned to its conditions, which lay outside it and so were not given along with it, but were first added in the empirical regress. Nonetheless it is by no means permitted to say of such a whole, which is divisible to infinity, that *it consists of infinitely many parts*. For although all the parts are contained in the intuition of the whole, *the whole division* is not contained in it. The division consists only in the continuing decomposition, or the regress itself, which first makes the series actual. Now since this regress is infinite, all the members (parts) it reaches are indeed contained in the given whole as *aggregates*, but not the whole *series of the division*. That series is successively infinite and never *whole*, and so can present no infinite multitude and no gathering of that multitude together into a whole.

This general reminder can very easily be applied, first, to space. Every space intuited within its boundaries is a whole of this kind, whose parts, however far it is decomposed, are always spaces in turn; and it is therefore divisible to infinity.

From this there follows quite naturally the second application, to an outer appearance enclosed within its boundaries (a body). Its divisibility is grounded on the divisibility of space, which makes up the possibility of the body as an extended whole. The body is therefore divisible to infinity, without therefore consisting of infinitely many parts.

It does seem, to be sure, that since a body must be represented as substance in space, it will differ from space in this respect, as far as the law of divisibility is concerned. For one may well grant that decomposition in space could never do away with all composition, since then even all space, [359] which otherwise has nothing self-subsistent about it, would cease to be (which is impossible). But that nothing at all should remain if all composition of matter were canceled in thought seems impossible to reconcile with the concept of a substance, which was supposed to be properly the subject of all composition and would have to remain in its elements, even if their connection in space, by which they make up a body, were canceled. But what

is called substance in *appearance* is not like what one would think of a thing in itself through a pure concept of the understanding. It is not an absolute subject, but a persistent image of sensibility, and nothing but intuition, in which nothing unconditioned is ever encountered.

Now although this rule of advancing to infinity undoubtedly holds for the subdivision of an appearance as a mere filling of space, it cannot hold if we also want to extend it to the multitude of parts that are already in a certain way separated off in the given whole, so that they make up a *quantum discretum*. To assume that in every articulated (organized) whole each part is again articulated, and that in dismembering the parts in this way one would always meet with new artful parts to infinity—in a word, that the whole is articulated to infinity—is something that cannot be thought at all. What can be thought is that the parts of matter, in their decomposition, could be articulated to infinity.[46] For the infinity of the division of a given appearance in space is grounded solely in this: that through the appearance merely the divisibility is given, that is, a multitude of parts that is in itself absolutely undetermined, while the parts themselves are given and determined only through the subdivision—in short, that the whole is not already divided up in itself. Hence the division can determine a multitude in the whole that goes as far as one wishes to advance in the regress of division. In an organic body articulated to infinity, by contrast, the whole is already represented, by this very concept, as divided up, and a multitude of parts determinate in itself yet infinite is found in it before any regress of division. In this one contradicts oneself, since this infinite involution is regarded as a series that can never be completed (infinite), and yet as completed in a gathering together. Infinite division marks the appearance only as *quantum continuum* [360] and is inseparable from the filling of space, because the ground of infinite divisibility lies precisely in that filling. But as soon as something is taken as a *quantum dis-*

46 *Quantum discretum* (Latin): "discrete quantity," one made of separate units, as opposed to *quantum continuum*, "continuous quantity."

cretum, the multitude of units in it is determined, and so is always equal to a number. How far organization may go in an articulated body, therefore, only experience can settle; and even if experience never arrived with certainty at an inorganic part, such parts must at least lie within possible experience. But how far the transcendental division of an appearance in general extends is not a matter of experience at all. It is a principle of reason: never to regard the empirical regress in the decomposition of what is extended, in accordance with the nature of this appearance, as absolutely completed.

CONCLUDING REMARK ON THE MATHEMATICAL IDEAS; PRELIMINARY REMARK ON THE DYNAMICAL IDEAS

In the dynamical antinomies an intelligible condition outside the series may allow both sides to be true.

When we presented the antinomy of pure reason through all the transcendental ideas in a table, and indicated the ground of this conflict and the only means of removing it—which consisted in declaring both opposed assertions false—we everywhere represented the conditions as belonging to their conditioned according to relations of space and time. This is the usual presupposition of common human understanding, and it was on this that the conflict entirely rested. In this respect, too, all dialectical representations of totality in the series of conditions for a given conditioned were through and through *of the same kind*. It was always a series in which the condition was connected with the conditioned as members of it, and so they were *homogeneous*. In such a series the regress could never be thought as completed; or, if this was to happen, a member conditioned in itself had to be falsely assumed to be a first member, and hence unconditioned. So what was considered was, if not always the object, that is, the conditioned, then at any rate the series of conditions for it, [361] and only with respect to its magnitude. And there the difficulty—which could be removed by no compromise, but only by cutting the knot entirely—consisted in this: that reason made

the series either *too long* or *too short* for the understanding, so that the understanding could never match reason's idea.

But here we have overlooked an essential distinction that holds among the objects—that is, among the concepts of the understanding—that reason strives to raise to ideas. For according to our table of categories above, two of them signify a *mathematical* synthesis of appearances, while the other two signify a *dynamical* one. Until now we could very well overlook this. For just as in our general representation of all the transcendental ideas we always remained only under conditions *in appearance*, so too in the two mathematical-transcendental ideas we had no *object* other than the object in appearance. Now, however, as we proceed to *dynamical* concepts of the understanding, insofar as they are to fit the idea of reason, that distinction becomes important and opens up an entirely new prospect on the lawsuit in which reason is entangled. Earlier this suit was *dismissed*, as built on false presuppositions on both sides. Now, since in the dynamical antinomy there may be a presupposition that can coexist with reason's claim, it can, from this point of view—with the judge making good the lack of legal grounds that both sides had failed to recognize—be *settled* to the satisfaction of both parties. That could not be done with the dispute in the mathematical antinomy.

The series of conditions are, to be sure, all homogeneous insofar as one looks solely at their *extent*: whether they are adequate to the idea, or whether the idea is too large or too small for them. But the concept of the understanding that underlies these ideas contains either solely a *synthesis of the homogeneous* (which is presupposed in every magnitude, in its composition as well as its division), or also a synthesis of the *heterogeneous*, which can at least be admitted in the dynamical synthesis of causal connection as well as in that of the necessary with the contingent.

That is why in the mathematical connection of the series of appearances no condition other than a *sensible* one can enter, that is, one that is itself a part of the series. The [362] dynamical

series of sensible conditions, by contrast, still admits a heterogeneous condition that is not a part of the series, but lies outside the series as merely *intelligible*. In this way reason is satisfied and the unconditioned is placed ahead of appearances, without thereby confusing the series of appearances, which is always conditioned, or breaking it off contrary to the principles of the understanding.

Now because the dynamical ideas admit a condition of appearances outside their series, that is, one that is not itself appearance, something happens that is entirely different from the outcome of the mathematical antinomy. That antinomy, namely, made it necessary to declare both dialectical counterassertions false. By contrast, the thoroughly conditioned character of the dynamical series, which is inseparable from them as appearances, can—when connected with a condition that is empirically unconditioned but also *non-sensible*—satisfy the *understanding* on the one side and *reason* on the other[47]. And since the dialectical arguments that sought unconditioned totality in mere appearances, in one way or another, fall away, the propositions of reason, in the meaning thus corrected, can instead *both be true*. This can never happen with the cosmological ideas that concern merely mathematically unconditioned unity, because with them no condition of the series of appearances is to be found that is not itself appearance and, as such, one member of the series.

47 KANT'S NOTE. For the understanding permits no condition *among appearances* that would itself be empirically unconditioned. But suppose an *intelligible* condition could be thought for something conditioned (in appearance)—a condition that would therefore not belong to the series of appearances as one of its members—without thereby interrupting the series of empirical conditions in the least. Such a condition could then be admitted as *empirically unconditioned*, in such a way that the continuous empirical regress would nowhere be broken off.

III. SOLUTION OF THE IDEA OF THE TOTALITY OF THE DERIVATION OF EVENTS FROM THEIR CAUSES

Kant defines causality from freedom and practical freedom, and asks whether freedom and nature can coexist.

We can think of only two kinds of causality with respect to what happens: causality according to *nature*, or causality from *freedom*. The [363] first is the connection of a state in the sensible world with a preceding state, upon which it follows according to a rule. Now the *causality* of appearances rests on conditions of time. If the preceding state had always existed, it could not have produced an effect that first arises in time. So the causality of the cause of what happens or comes into being has itself *come into being*, and according to the principle of the understanding it in turn requires a cause.

By freedom in the cosmological sense, on the other hand, I understand the faculty of beginning a state *by itself*, whose causality therefore does not in turn stand, according to the law of nature, under another cause that determined it in time. In this meaning freedom is a pure transcendental idea. First, it contains nothing borrowed from experience. Second, its object cannot be given determinately in any experience, because it is a universal law of the very possibility of all experience that everything that happens must have a cause—and hence that the causality of the cause, which has *itself happened* or come into being, must in turn have a cause. In this way the whole field of experience, however far it may extend, is transformed into a sum total of mere nature. But since in this way no absolute totality of conditions in the causal relation can be obtained, reason creates for itself the idea of a spontaneity that could begin to act by itself, without another cause having to precede it and determine it to action in turn according to the law of causal connection.

It is especially remarkable that the practical concept of freedom is grounded on this *transcendental* idea of *freedom*, and that the transcendental idea constitutes the real point of the diffi-

culties that have always surrounded the question of freedom's possibility. *Freedom in the practical sense* is the independence of choice from *necessitation* by impulses of sensibility. For a choice is *sensible* insofar as it is *affected pathologically* (by motives of sensibility); it is called *animal* (*arbitrium brutum*) if it can be *necessitated pathologically*. Human choice is indeed an *arbitrium sensitivum*, yet not *brutum* but *liberum*, because sensibility 364 does not make its action necessary; rather, there dwells in the human being a faculty of determining himself by himself, independently of necessitation by sensible impulses.[48]

It is easy to see that if all causality in the sensible world were mere nature, every event would be determined by another in time according to necessary laws. Since the appearances, insofar as they determine choice, would then have to make every action necessary as their natural result, the abolition of transcendental freedom would at the same time annihilate all practical freedom. For practical freedom presupposes that, although something did not happen, it nevertheless *ought* to have happened, and that its cause in appearance was therefore not so determining as to exclude a causality in our choice—a causality to produce, independently of those natural causes and even against their force and influence, something that is determined in the temporal order according to empirical laws, and hence to begin a series of events *entirely by itself*.

Here, then, we find what is generally found in the conflict of a reason that ventures beyond the boundaries of possible experience: the problem is not really *physiological* but *transcendental*. Hence the question of the possibility of freedom does indeed concern psychology; but since it rests on dialectical arguments of merely pure reason, it must, together with its solution, occupy transcendental philosophy alone. Transcendental philosophy cannot decline to give a satisfactory answer here. To put it in a position to do so, I must first try to determine its procedure in this problem more precisely by means of a remark.

48 *Arbitrium brutum* (Latin): "animal choice"; *arbitrium sensitivum*: "sensible choice"; *liberum*: "free."

If appearances were things in themselves, and hence space and time forms of the existence of things in themselves, then the conditions would always belong, together with the conditioned, as members of one and the same series. In the present case too, there would then arise the antinomy common to all transcendental ideas: that this series would unavoidably turn out too large or too small for the understanding. But the dynamical concepts of reason, with which we are occupied in this and the following number, have this peculiarity. Since they have to do not with an object considered as a magnitude, but only with its *existence*, we can abstract from the magnitude of the series of conditions; what matters with them is merely the dynamical [365] relation of the condition to the conditioned. So in the question about nature and freedom we already meet the difficulty whether freedom is possible at all, and, if it is, whether it can coexist with the universality of the natural law of causality. Hence the question is whether it is a correct disjunctive proposition that every effect in the world must arise *either* from nature *or* from freedom—or whether, rather, *both* can take place at once, in different relations, in one and the same event. The correctness of that principle of the thoroughgoing connection of all events in the sensible world according to unchangeable natural laws is already established as a principle of the Transcendental Analytic and admits of no exception. So the only question is whether, notwithstanding this, freedom can also take place with regard to the very same effect that is determined according to nature, or whether freedom is completely excluded by that inviolable rule. And here the common but deceptive presupposition of the *absolute reality* of appearances at once shows its harmful influence in confusing reason. For if appearances are things in themselves, freedom cannot be saved. Nature is then the complete cause of every event, sufficient in itself to determine it, and the event's condition is always contained only in the series of appearances, which, together with their effect, are necessary under the law of nature. If, on the other hand, appearances count for nothing more than they in fact are—namely, not things

in themselves but mere representations connected according to empirical laws—then they must themselves have grounds that are not appearances. Such an intelligible cause, however, is not determined by appearances with regard to its causality, although its effects appear and so can be determined by other appearances. The intelligible cause, together with its causality, is thus outside the series, whereas its effects are found in the series of empirical conditions. The effect can therefore be regarded as free with respect to its intelligible cause, and yet at the same time, with respect to appearances, as resulting from them according to the necessity of nature. This distinction, presented in general and entirely in the abstract, must seem extremely subtle and obscure, but it will become clear in its application. Here I have only wanted to remark that, since the thoroughgoing connection of all appearances in one context of nature is an unremitting law, this law would necessarily [366] overthrow all freedom if one insisted stubbornly on the reality of appearances. That is why those who follow the common opinion on this point have never been able to reconcile nature and freedom with each other.

POSSIBILITY OF CAUSALITY THROUGH FREEDOM, UNITED WITH THE UNIVERSAL LAW OF NATURAL NECESSITY

The same subject may have an empirical character under nature and an intelligible character that is free.

Whatever in an object of the senses is not itself appearance, I call *intelligible*. Suppose, then, that what must be regarded as appearance in the sensible world also has in itself a faculty that is not an object of sensible intuition, but through which it can nevertheless be the cause of appearances. In that case the *causality* of this being can be considered from two sides: as *intelligible* in its *action*, as the causality of a thing in itself, and as *sensible* in its *effects*, as the causality of an appearance in the sensible world. We would thus form both an empirical and an intellectual concept of the causality of such a subject's faculty, and the two would take place together in one and the same effect. To

think the faculty of an object of the senses in this twofold way contradicts none of the concepts we have to form of appearances and of a possible experience. For since appearances are not things in themselves, they must have as their ground a transcendental object that determines them as mere representations. So nothing prevents us from ascribing to this transcendental object, besides the property through which it appears, a *causality* that is not appearance, although its *effect* is nevertheless found in appearance. But every efficient cause must have a *character*, that is, a law of its causality, without which it would not be a cause at all. So in a subject of the sensible world we would have, first, an *empirical character*. Through it, its actions, as appearances, would stand through and through in connection with other appearances according to constant natural laws, could be derived from them as their conditions, and so, in combination with them, would make up members of a single series of the order of nature. Second, we would also have to grant it [367] an *intelligible character*. Through this it is indeed the cause of those actions as appearances, but the intelligible character itself stands under no conditions of sensibility and is not itself appearance. We could also call the first the character of such a thing in appearance, and the second the character of the thing in itself.

Now this acting subject, in its intelligible character, would stand under no conditions of time, for time is only the condition of appearances, not of things in themselves. In it no *action* would *arise* or *pass away*. Hence it would also not be subject to the law of all determination of time, of everything alterable: that everything *that happens* has its cause *in the appearances* (of the preceding state). In a word, its causality, insofar as it is intellectual, would not stand at all in the series of empirical conditions that make the event in the sensible world necessary. This intelligible character could indeed never be known immediately, since we can perceive nothing except insofar as it appears. But it would still have to be *thought* in conformity with the empirical character, just as in general we must, in thought, lay a

transcendental object at the ground of appearances, even though we know nothing of what it is in itself.

In its empirical character, therefore, this subject, as appearance, would be subject to all the laws of determination according to causal connection. To that extent it would be nothing but a part of the sensible world, whose effects, like every other appearance, would flow inevitably from nature. As outer appearances influenced it, and as its empirical character—that is, the law of its causality—came to be known through experience, all its actions would have to be explicable according to natural laws, and all the requisites for a complete and necessary determination of them would have to be found in a possible experience.

In its intelligible character, however (though of this we can have nothing but the general concept), the same subject would nevertheless have to be declared free of all influence of sensibility and all determination by appearances. In it, insofar as it is *noumenon*, nothing *happens*; no alteration is found that would require dynamical determination of time, and hence no connection with appearances as causes. So this active being would [368] to that extent be independent and free in its actions from all natural necessity, which is found only in the sensible world. One would say of it quite correctly that it begins its effects in the sensible world *by itself*, without the action beginning *in it* itself. And this would hold even though the effects in the sensible world may not for that reason begin by themselves. For in the sensible world they are always determined beforehand by empirical conditions in preceding time—but only by means of the empirical character (which is merely the appearance of the intelligible one)—and are possible only as a continuation of the series of natural causes. Thus freedom and nature, each in its complete meaning, would be found in the very same actions, depending on whether one compares them with their intelligible or their sensible cause, at the same time and without any conflict.

EXPLANATION OF THE COSMOLOGICAL IDEA OF FREEDOM TOGETHER WITH UNIVERSAL NATURAL NECESSITY

Kant develops the solution through reason's causality, the ought, and the example of a malicious lie.

I have thought it good first to sketch the outline of the solution to our transcendental problem, so that the course of reason in solving it can be better surveyed. Now let us set out separately the moments of its decision on which everything really depends, and consider each one in particular.

Consider the law of nature that everything that happens has a cause; that the causality of this cause—that is, the *action*—since it precedes in time, and cannot itself have always existed in relation to an effect that has *arisen*, but must have *happened*, likewise has its cause among the appearances, by which it is determined; and that consequently all events in an order of nature are empirically determined. This law, through which appearances first constitute a *nature* and can furnish objects of an experience, is a law of the understanding. Under no pretext may we depart from it or exempt any appearance from it. Otherwise we would place that appearance outside all possible experience, thereby distinguish it from all objects of possible experience, and make it a mere thought-entity and a figment of the brain.

369 It may look here as if there were only a chain of causes that permits no *absolute totality* at all in the regress to its conditions. But this misgiving does not hold us up in the least, for it has already been removed in the general assessment of the antinomy of reason, when reason pursues the unconditioned in the series of appearances. If we are willing to yield to the delusion of transcendental realism, then neither nature nor freedom remains. Here the only question is this: if one acknowledges nothing but natural necessity in the whole series of all events, is it still possible to regard the very same event that on the one hand is a mere effect of nature as on the other hand an effect from freedom? Or is there a direct contradiction between these two kinds of causality?

Among the causes in appearance there can certainly be nothing that could begin a series absolutely and by itself. Every action as appearance, insofar as it produces an event, is itself an event or occurrence, which presupposes another state in which its cause is found. So everything that happens is only a continuation of the series, and no beginning that occurs by itself is possible in it. Hence all actions of natural causes in the temporal sequence are themselves in turn effects, which likewise presuppose their causes in the temporal series. An *original* action, through which something happens that was not there before, is not to be expected from the causal connection of appearances.

But is it also necessary that, if the effects are appearances, the causality of their cause, which (that is, the cause) is itself also appearance, must be merely empirical? Is it not rather possible that, although every effect in appearance does indeed require a connection with its cause according to laws of empirical causality, this empirical causality itself—without in the least interrupting its connection with natural causes—could nevertheless be an effect of a causality that is not empirical but intelligible? That is, an effect of an action, original with respect to appearances, of a cause that to that extent is not appearance but intelligible as regards this faculty, although otherwise it must be counted entirely as a member of the chain of nature belonging to the sensible world.

We need the principle of the causality of appearances among themselves in order to seek and specify natural conditions for natural events—that is, causes in [370] appearance. If this is granted and not weakened by any exception, then the understanding, which in its empirical use sees nothing but nature in all occurrences and is also entitled to do so, has everything it can demand, and physical explanations proceed on their unhindered course. Now it does not detract from this in the least —even supposing it were otherwise merely invented—if one assumes that among natural causes there are also some that have a faculty that is only intelligible, in that its determination to action never rests on empirical conditions but on mere

grounds of the understanding, provided that the *action in appearance* of this cause conforms to all the laws of empirical causality. For in this way the acting subject, as *causa phaenomenon*, would be linked with nature in the unbroken dependence of all its actions. Only the phenomenon of this subject (with all its causality in appearance) would contain certain conditions which, if one wants to ascend from the empirical object to the transcendental one, would have to be regarded as merely intelligible. For if we follow the rule of nature only in what may be the cause among appearances, we need not be concerned about what ground of these appearances and their connection is thought in the transcendental subject, which is empirically unknown to us.[49] This intelligible ground does not touch the empirical questions at all. It concerns, perhaps, merely thinking in the pure understanding. And although the effects of this thinking and acting of the pure understanding are found in the appearances, these must nonetheless be completely explicable from their cause in appearance according to natural laws. For this we follow their merely empirical character as the highest ground of explanation, and pass over the intelligible character, which is the transcendental cause of the empirical one, as entirely unknown—except insofar as it is indicated through the empirical character as its sensible sign. Let us apply this to experience.

REASON AND THE OUGHT

Human reason shows its causality in imperatives: the ought expresses a necessity found nowhere in nature.

The human being is one of the appearances of the sensible world, and to that extent also one of the natural causes, whose causality must stand under empirical laws. As such he must accordingly also have an empirical character, like all other natural things. We notice it through the powers and faculties he manifests in his effects. In [371] lifeless nature, or nature that is

49 *Causa phaenomenon* (Latin): "cause as phenomenon."

merely animal in its life, we find no ground for thinking of any faculty as other than merely sensibly conditioned. But the human being, who otherwise knows the whole of nature only through the senses, also cognizes himself through mere apperception—and indeed in actions and inner determinations that he cannot count as impressions of the senses at all. To himself he is, of course, partly phenomenon; but partly, namely with regard to certain faculties, he is a merely intelligible object, because the action of these faculties cannot be counted as belonging to the receptivity of sensibility at all. We call these faculties understanding and reason. The latter in particular is distinguished quite properly and preeminently from all empirically conditioned powers, since it considers its objects merely according to ideas, and determines the understanding accordingly, which then makes an empirical use of its own (admittedly also pure) concepts.

That this reason has causality, or at least that we represent a causality of this kind in it, is clear from the *imperatives* that in everything practical we impose as rules on our executive powers. The *ought* expresses a kind of necessity and of connection with grounds that occurs nowhere else in the whole of nature. Of nature, the understanding can cognize only *what is*, or has been, or will be. It is impossible that anything in nature *ought to be* other than it in fact is in all these temporal relations. Indeed, if one has merely the course of nature in view, the ought has no meaning whatsoever. We cannot ask at all what ought to happen in nature, any more than we can ask what properties a circle ought to have. We can ask only what happens in nature, or what properties the circle has.

Now this ought expresses a possible action whose ground is nothing but a mere concept, whereas the ground of a merely natural action must always be an appearance. The action must certainly be possible under natural conditions if the ought is directed at it. But these natural conditions do not concern the determination of choice itself, only its effect and result in appearance. However many natural grounds there may be that

impel me to *will*, however many sensible stimuli, they cannot produce the *ought*. They can produce only a willing that is far from necessary, always conditioned—a willing to which the ought that reason pronounces opposes measure and goal, indeed prohibition [372] and authority. Whether it is an object of mere sensibility (the agreeable) or of pure reason (the good), reason does not give way to the ground that is empirically given, and does not follow the order of things as they present themselves in appearance. Instead, with complete spontaneity, it makes for itself an order of its own according to ideas. It fits the empirical conditions into this order, and according to these ideas it even declares actions to be necessary that nevertheless *have not happened* and perhaps will not happen. Of all of them, however, it presupposes that reason can have causality in relation to them; for without this it would not expect its ideas to have effects in experience.

Now let us stop here and assume, at least as possible, that reason really does have causality with regard to appearances. Then, however much it is reason, it must nevertheless exhibit an empirical character. For every cause presupposes a rule according to which certain appearances follow as effects, and every rule requires a uniformity in the effects that grounds the concept of the cause (as a faculty). This concept, insofar as it must become evident from mere appearances, we can call the cause's empirical character. That character is constant, while the effects appear in changing forms according to the variety of the accompanying and in part limiting conditions.

Every human being, then, has an empirical character of his choice. This is nothing but a certain causality of his reason, insofar as that causality shows in its effects in appearance a rule from which one can gather the rational grounds and the actions of reason according to their kind and degree, and judge the subjective principles of his choice. Since this empirical character must itself be drawn from appearances as its effect, and from their rule, which experience supplies, all the actions of the human being in appearance are determined according to the

order of nature by his empirical character and the other cooperating causes. If we could investigate all the appearances of his choice down to the ground, there would not be a single human action that we could not predict with certainty and cognize as necessary from its preceding conditions. With regard to this empirical character, therefore, there is no freedom; and yet only in terms of this character [373] can we consider the human being, if we merely want to *observe* him and, as happens in anthropology, investigate physiologically the moving causes of his actions.

But suppose we consider these very same actions in relation to reason—not speculative reason, in order to *explain* them according to their origin, but reason solely insofar as it is itself the cause that *produces* them. In a word, suppose we compare them with reason in a *practical* respect. Then we find a rule and order entirely different from the order of nature. For perhaps everything that nevertheless *has happened* according to the course of nature, and according to its empirical grounds had inevitably to happen, *ought not to have happened*. Sometimes, however, we find, or at least believe we find, that the ideas of reason have actually proved their causality with regard to human actions as appearances, and that these actions have happened not because they were determined by empirical causes—no—but because they were determined by grounds of reason.

Now suppose one could say that reason has causality with regard to appearance. Could its action then be called free, when in its empirical character (its way of sensing) it is quite precisely determined and necessary? This empirical character is in turn determined in the intelligible character (the way of thinking). The way of thinking, however, we do not know; we designate it through appearances, which really make known immediately

only the way of sensing (the empirical character)[50]. Now the action, insofar as it is to be attributed to the way of thinking as its cause, nevertheless does not *follow* from it at all according to empirical laws—that is, not in such a way that the conditions of pure reason *precede* it, but only in such a way that their effects in the appearance of inner sense precede it.[51] Pure reason, as a merely intelligible faculty, is not subject to the form of time, and hence not to the conditions of temporal succession either. The causality of reason in the intelligible character does not *arise*, or [374] start up at some particular time, in order to produce an effect. For otherwise it would itself be subject to the natural law of appearances, insofar as that law determines causal series in time; and the causality would then be nature and not freedom. So we will be able to say: if reason can have causality with regard to appearances, then it is a faculty *through* which the sensible condition of an empirical series of effects first begins. For the condition that lies in reason is not sensible, and so does not itself begin. Here, then, we find what we missed in all empirical series: that the *condition* of a successive series of events could itself be empirically unconditioned. For here the condition is *outside* the series of appearances (in the intelligible), and hence subject to no sensible condition and to no determination of time by a preceding cause.

Nevertheless, this very same cause, in another relation, also belongs to the series of appearances. The human being is himself appearance. His choice has an empirical character, which is the (empirical) cause of all his actions. There is none of the conditions that determine the human being in accordance with this

50 KANT'S NOTE. The real morality of actions (merit and guilt), even that of our own conduct, therefore remains entirely hidden from us. Our imputations can refer only to the empirical character. But how much of this is the pure effect of freedom, and how much is to be ascribed to mere nature and to faults of temperament for which one is not to blame, or to its happy constitution (*merito fortunae*), no one can fathom; and hence no one can judge it with complete justice.

TRANSLATOR'S NOTE. *Merito fortunae* (Latin): "to the credit of fortune."

51 *Sinnesart* and *Denkungsart*: literally "way of sensing" and "way of thinking"; in ordinary German, roughly a person's temperament and character.

character that is not contained in the series of natural effects and does not obey their law—the law according to which no empirically unconditioned causality of what happens in time is to be found. Hence no given action (since it can be perceived only as appearance) can begin absolutely by itself. But of reason one cannot say that the state in which it determines choice is preceded by another state in which this state itself is determined. For since reason itself is not an appearance and is not subject to any conditions of sensibility at all, there is no temporal succession in it, even as regards its causality; and so the dynamical law of nature, which determines temporal succession according to rules, cannot be applied to it.

Reason is therefore the persisting condition of all the voluntary actions under which the human being appears. Each of them is determined beforehand in the human being's empirical character, before it even happens. With regard to the intelligible character, of which the empirical character is only the sensible schema, there is no *before* or *after*. Every action, irrespective of the temporal relation in which it stands to other appearances, is the immediate effect of the intelligible character of pure reason. [375] Pure reason therefore acts freely, without being dynamically determined in the chain of natural causes by grounds, whether external or internal, that precede it in time; and this freedom of reason can be regarded not only negatively, as independence from empirical conditions (for then the faculty of reason would cease to be a cause of appearances), but also designated positively, as a faculty of beginning a series of events by itself. In reason itself nothing begins; as the unconditioned condition of every voluntary action, it admits no conditions above it that precede it in time. Its effect, meanwhile, does begin in the series of appearances, but can never make up an absolutely first beginning in it.

AN EXAMPLE: THE MALICIOUS LIE

We explain a lie by its empirical causes, yet blame the liar as though reason could have acted otherwise.

Let us illustrate this regulative principle of reason by an example from its empirical use—not to confirm it (for such proofs are unfit for transcendental assertions). Take a voluntary action, for example a malicious lie by which someone has brought a certain confusion into society. We first investigate it according to its motives, from which it arose, and then judge how it and its consequences can be imputed to him. With the first aim in view, one traces his empirical character back to its sources. These one seeks in bad upbringing and bad company, partly also in the malice of a natural temperament insensitive to shame, and partly one puts them down to frivolity and thoughtlessness—without neglecting the occasional causes that prompted the act. In all this one proceeds just as one does in general when investigating the series of determining causes of a given natural effect. Now although one believes that the action is determined by all this, one nonetheless blames the perpetrator—and not for his unhappy temperament, not for the circumstances that influenced him, not even for the life he has led up to now. For one presupposes that one can set aside entirely what that life was like, and regard the elapsed series of conditions as not having happened, and this deed as entirely unconditioned with respect to the preceding state, as if the perpetrator began a series of consequences with it entirely by himself. This blame is grounded on a law of reason, in which reason is regarded as a cause that could and should have determined the person's conduct otherwise, regardless of all the empirical [376] conditions named. And indeed one regards the causality of reason not as a mere contributing factor, but as complete in itself, even if the sensible incentives were not in favor of the action at all but rather against it. The action is attributed to his intelligible character. He is entirely to blame now, at the moment he lies. Hence,

notwithstanding all the empirical conditions of the deed, reason was completely free, and the deed is to be attributed entirely to its failure to act.

It is easy to see from this judgment of imputation that one has in mind that reason is not affected at all by all that sensibility; that it does not alter (even though its appearances—that is, the way it shows itself in its effects—do alter); that in it no state precedes that determines the following one; and hence that it does not belong at all to the series of sensible conditions that make appearances necessary according to natural laws. Reason is present and the same in all the actions of the human being in all circumstances of time. But it is not itself in time, and does not, say, enter a new state in which it was not before. It is *determining*, but *not determinable*, with respect to that state. Hence one cannot ask: why did reason not determine itself otherwise? One can ask only: why did it not determine the *appearances* otherwise through its causality? To this, however, no answer is possible. For a different intelligible character would have given a different empirical one. And when we say that the perpetrator could nevertheless have refrained from the lie, notwithstanding the whole life he had led up to then, this means only that the lie stands immediately under the power of reason, and that reason in its causality is subject to no conditions of appearance and of the passage of time. The difference of time can indeed make a principal difference between appearances relative to one another; but since appearances are not things, and hence not causes in themselves, it can make no difference to the action in relation to reason.

So in judging free actions with respect to their causality we can get only as far as the intelligible cause, but not *beyond it*. We can cognize that it could be free, that is, determined independently of sensibility, and in this way be the sensibly unconditioned condition of appearances. But why the intelligible character gives precisely these appearances and this empirical character [377] under the present circumstances—to answer that exceeds every capacity of our reason, indeed every right of

reason even to ask it. It is as if one were to ask why the transcendental object of our outer sensible intuition gives only intuition in *space* and not some other kind. But the problem we had to solve does not oblige us to answer this at all. For the problem was only this: whether freedom conflicts with natural necessity in one and the same action. And this we have answered sufficiently. We showed that, since freedom permits a relation to an entirely different kind of conditions than natural necessity does, the law of natural necessity does not affect freedom, and hence both can take place independently of each other and without disturbing each other.

It should be carefully noted that we have not hereby meant to establish the *actuality* of freedom as one of the faculties that contain the cause of the appearances of our sensible world. For apart from the fact that this would not have been a transcendental consideration at all, which has to do merely with concepts, it could not have succeeded either, since from experience we can never infer something that need not be thought according to laws of experience at all. Further, we have not even meant to prove the *possibility* of freedom. That would not have succeeded either, because from mere concepts *a priori* we can never cognize the possibility of any real ground or any causality. Freedom is treated here only as a transcendental idea, through which reason thinks of beginning the series of conditions in appearance absolutely by means of something sensibly unconditioned, but thereby entangles itself in an antinomy with its own laws, which it prescribes to the empirical use of the understanding. That this antinomy rests on mere illusion, and that nature at least *does not conflict* with causality from freedom—this was the only thing we could accomplish, and the one and only thing that mattered to us.

IV. SOLUTION OF THE IDEA OF THE TOTALITY OF THE DEPENDENCE OF APPEARANCES IN THEIR EXISTENCE

A necessary being outside the sensible world is compatible with the thoroughgoing contingency of everything in it.

[378] In the preceding number we considered the alterations of the sensible world in their dynamical series, in which each stands under another as its cause. Now this series of states serves us only as a guide for reaching an existence that could be the highest condition of everything alterable, namely the *necessary being*. The concern here is not with unconditioned causality but with the unconditioned existence of substance itself. The series before us is therefore really a series only of concepts, not of intuitions, insofar as the one is the condition of the other.

But it is easy to see that, since everything in the sum total of appearances is alterable, and hence conditioned in its existence, there can be no unconditioned member anywhere in the series of dependent existence whose existence would be absolutely necessary. So if appearances were things in themselves, and for that very reason their condition always belonged, together with the conditioned, to one and the same series of intuitions, a necessary being could never take place as the condition of the existence of the appearances of the sensible world.

The dynamical regress, however, has this peculiarity that distinguishes it from the mathematical one. The mathematical regress really has to do only with the composition of parts into a whole, or the division of a whole into its parts; so the conditions of this series must always be regarded as parts of it, hence as homogeneous, and consequently as appearances. In the dynamical regress, by contrast, the concern is not with the possibility of an unconditioned whole from given parts, or of an unconditioned part for a given whole, but with the derivation of a state from its cause, or of the contingent existence of substance itself from necessary existence. So here the condition need not necessarily make up one empirical series with the conditioned.

[379] So with the apparent antinomy before us, a way out still remains open: namely, that both conflicting propositions can be true at once in different relations. All things in the sensible world may be thoroughly contingent, and hence always have only empirically conditioned existence, while there is nevertheless also a non-empirical condition of the whole series, that is, an unconditionally necessary being. For this being, as an intelligible condition, would not belong to the series as a member of it at all (not even as its highest member), and would also not make any member of the series empirically unconditioned. Rather, it would leave the whole sensible world in its empirically conditioned existence, which runs through all its members. This way of laying an unconditioned existence at the ground of appearances would thus differ from the empirically unconditioned causality (freedom) of the preceding article in the following respect. In the case of freedom, the thing itself as cause (*substantia phaenomenon*) still belonged to the series of conditions, and only its *causality* was thought as intelligible. Here, however, the necessary being would have to be thought entirely outside the series of the sensible world (as *ens extramundanum*) and as merely intelligible. Only in this way can it be prevented from being itself subject to the law of the contingency and dependence of all appearances.[52]

The *regulative principle* of reason with regard to this problem of ours is therefore as follows. Everything in the sensible world has empirically conditioned existence, and nowhere in it is there unconditioned necessity with regard to any property. There is no member of the series of conditions whose empirical condition one must not always expect in a possible experience and seek as far as one can. Nothing entitles us to derive any existence from a condition outside the empirical series, or even to hold it to be absolutely independent and self-sufficient within the series itself. Yet this does not at all deny that the whole series could be grounded in some intelligible being (which is for

52 *Ens extramundanum* (Latin): a being outside the world.

that reason free from every empirical condition and instead contains the ground of the possibility of all these appearances).

But the intention here is by no means to prove the unconditionally necessary existence of a being, or even to ground on this the possibility of a merely intelligible condition of the existence of the appearances of the sensible world. It is only this: just as we limit reason [380] so that it does not abandon the thread of empirical conditions and stray into grounds of explanation that are *transcendent* and cannot be exhibited *in concreto*, so on the other hand we limit the law of the merely empirical use of the understanding, so that it does not decide about the possibility of things in general, and does not declare the intelligible *impossible* merely because we cannot use it to explain appearances. What is shown, then, is only that the thoroughgoing contingency of all natural things and all their (empirical) conditions can quite well coexist with the arbitrary presupposition of a necessary, though merely intelligible, condition; that there is thus no true contradiction between these assertions; and that they can therefore *both be true*. Such an absolutely necessary being of the understanding may always be impossible in itself; yet this can by no means be inferred from the universal contingency and dependence of everything that belongs to the sensible world, nor from the principle of not stopping at any single member of it, insofar as that member is contingent, and appealing to a cause outside the world. Reason goes its own way in its empirical use, and a way of its own in its transcendental use.

The sensible world contains nothing but appearances, and these are mere representations, which are always in turn sensibly conditioned. Since here we never have things in themselves as our objects, it is not surprising that we are never entitled to leap from any member of the empirical series, whichever it may be, beyond the context of sensibility—as if these members were things in themselves existing outside their transcendental ground, which one could leave behind in order to seek the cause of their existence outside them. With contingent *things* this would indeed have to happen in the end, but not with mere *rep-*

resentations of things, whose contingency is itself only phenomenon and can lead to no regress other than the one that determines the phenomena, that is, the empirical regress. But to think an intelligible ground of appearances, that is, of the sensible world, and to think it as freed from the contingency of the sensible world, is contrary neither to the unrestricted empirical regress in the series of appearances nor to their thoroughgoing contingency. And that is also the only thing we had to accomplish in order to remove the apparent antinomy, and it could be done only in this way. For if the [381] condition for each conditioned thing (as regards its existence) is in every case sensible, and for that very reason belongs to the series, then it is itself in turn conditioned (as the Antithesis of the fourth antinomy shows). So either a conflict with reason, which demands the unconditioned, had to remain, or this unconditioned had to be posited outside the series, in the intelligible, whose necessity neither requires nor permits any empirical condition and is therefore unconditionally necessary relative to appearances.

The empirical use of reason (with regard to the conditions of existence in the sensible world) is not affected by admitting a merely intelligible being. It proceeds, according to the principle of thoroughgoing contingency, from empirical conditions to higher ones, which are always just as empirical. But neither does this regulative principle exclude the assumption of an intelligible cause that is not in the series, when the concern is the pure use of reason (with regard to ends). For there the intelligible cause signifies only the ground, merely transcendental and unknown to us, of the possibility of the sensible series in general. Its existence—independent of all the conditions of the sensible series and unconditionally necessary with respect to them—is not at all opposed to the unlimited contingency of that series, and hence not to the regress in the series of empirical conditions, which nowhere comes to an end.

CONCLUDING REMARK ON THE WHOLE ANTINOMY OF PURE REASON

The fourth antinomy pushes reason beyond the sensible world toward the necessary being, the subject of the next chapter.

So long as our concepts of reason have as their object merely the totality of conditions in the sensible world, and what can be done in the service of reason with regard to it, our ideas are indeed transcendental, but still *cosmological*. But as soon as we posit the unconditioned (which is, after all, what really matters) in what lies entirely outside the sensible world, and hence outside all possible experience, the ideas become *transcendent*. They no longer serve merely to complete the empirical use of reason (a completion that always remains an idea, never to be carried out, but nevertheless to be followed). Instead they separate themselves from it entirely and make objects for themselves, whose material is not taken from experience, and whose objective reality rests not on the completion of the empirical series but on pure concepts *a priori*. [382] Transcendent ideas of this kind have a merely intelligible object. It is certainly permissible to admit this object as a transcendental object, of which we otherwise know nothing. But to think it as a thing determinable through its distinguishing and inner predicates, we have on our side neither grounds of its possibility (as independent of all concepts of experience) nor the slightest justification for assuming such an object; and so it is a mere thought-entity. Nevertheless, among all the cosmological ideas, the one that occasioned the fourth antinomy urges us to venture this step. For the existence of appearances, which is not grounded in itself at all but is always conditioned, calls on us to look around for something distinct from all appearances, and hence for an intelligible object, with which this contingency would cease. But once we have taken the liberty of assuming, outside the field of sensibility as a whole, an actuality subsisting on its own, appearances are to be regarded only as contingent ways in which intelligible objects are represented by beings that are themselves intelli-

gences. So nothing remains for us but analogy, by which we use concepts of experience to form some concept or other of intelligible things, of which in themselves we have not the slightest knowledge. And since we come to know the contingent only through experience, whereas here the talk is of things that are not supposed to be objects of experience at all, we will have to derive our knowledge of them from what is necessary in itself, from pure concepts of things in general. Hence the first step we take outside the sensible world compels us to begin our new knowledge with the investigation of the absolutely necessary being, and to derive from the concepts of it the concepts of all things insofar as they are merely intelligible. This attempt we will undertake in the following chapter.

The Ideal of Pure Reason

Kant's critique of the ontological, cosmological and physico-theological proofs of God's existence.

ERSTER ABSCHNITT. VON DEM IDEAL ÜBERHAUPT.

383 We saw above that through pure *concepts of the understanding*, without any of the conditions of sensibility, no objects at all can be represented, because the conditions of their objective reality are missing and nothing is found in them but the mere form of thinking. Nevertheless they can be exhibited *in concreto* if they are applied to appearances; for in appearances they properly have the material for a concept of experience, which is nothing but a concept of the understanding *in concreto*. *Ideas*, however, are still further removed from objective reality than *categories*; for no appearance can be found in which they could be represented *in concreto*. They contain a certain completeness that no possible empirical cognition attains, and in them reason has in view only a systematic unity, to which it seeks to bring the empirically possible unity ever closer without ever fully reaching it.

But what I call the *ideal* seems to be still further removed from objective reality than the idea. By the ideal I understand the idea not merely *in concreto* but *in individuo*, that is, as an individual thing that is determinable, or even determined, by the idea alone.[1]

Humanity in its entire perfection contains not only the extension of all the essential properties belonging to this nature,

1 *In individuo* (Latin): in the individual, as a single thing.

which make up our concept of it, to the point of complete congruence with its ends—which would be our idea of perfect humanity. It also contains everything that, beyond this concept, belongs to the thoroughgoing determination of the idea; for of all opposed predicates only a single one can suit the idea of the most perfect human being. What for us is an ideal was for *Plato* an *idea of the divine understanding*: an individual object in that understanding's [384] pure intuition, the most perfect of each kind of possible being, and the original ground of all its copies in appearance.

Without soaring so high, however, we must admit that human reason contains not only ideas but also ideals. These do not have a *creative* power, like the Platonic ones, but they do have *practical* power (as regulative principles), and they lie at the basis of the possibility of the perfection of certain *actions*. Moral concepts are not entirely pure concepts of reason, because something empirical (pleasure or displeasure) lies at their basis. Nevertheless, with regard to the principle by which reason sets limits to a freedom that is in itself lawless (and so if we attend merely to their form), they can very well serve as examples of pure concepts of reason. Virtue, and with it human wisdom in its entire purity, are ideas. But the sage (of the Stoics) is an ideal, that is,[2] a human being who exists merely in thought but who is fully congruent with the idea of wisdom. Just as the idea gives the *rule*, so in such a case the ideal serves as the *archetype* for the thoroughgoing determination of the copy. We have no other standard for our actions than the conduct of this divine human being within us, with which we compare ourselves, judge ourselves, and thereby improve ourselves, even though we can never reach it. Although one may not wish to grant these ideals objective reality (existence), they are not on that account to be regarded as figments of the brain. They supply an indispensable standard for reason, which needs the concept of what is entirely complete in its kind, in order to estimate and measure by it the degree

2 The Stoics, the school founded by Zeno of Citium (c. 300 BC), held up the perfectly wise man, the sage, as a figure who perhaps had never existed.

and the defects of what is incomplete. But to try to realize the ideal in an example, that is, in appearance—as, say, the sage in a novel—is impracticable. It has, moreover, something absurd and hardly edifying about it. For the natural limits, which continually detract from the completeness in the idea, make all illusion in such an attempt impossible, and thereby make the good that lies in the idea itself suspect, and like a mere fiction.

Such is the case with the ideal of reason, which must always rest on determinate concepts and serve as a rule and archetype, whether for following or for judging. It is quite otherwise with the creatures of the imagination, of which no one can give an account or an intelligible concept. They are, as it were, *monograms*: individual strokes, though not determined by any rule that could be stated, [385] which make up a drawing that hovers, as it were, amid various experiences rather than a determinate image. Painters and physiognomists claim to have such things in their heads, and they are supposed to be an incommunicable silhouette of their products or even of their judgments.[3] They can be called, though only improperly, ideals of sensibility, because they are supposed to be the unattainable model of possible empirical intuitions, and yet they provide no rule capable of being explained and tested.

The aim of reason with its ideal, by contrast, is thoroughgoing determination according to rules *a priori*. Hence it thinks for itself an object that is supposed to be thoroughly determinable according to principles, even though the sufficient conditions for this are lacking in experience, and the concept itself is therefore transcendent.

3 Physiognomists claimed to read character from the features of the face; the art was popularized in Kant's day by Johann Kaspar Lavater (1741–1801).

THE TRANSCENDENTAL IDEAL (PROTOTYPON TRANSCENDENTALE)

Thoroughgoing determination of things presupposes the idea of a sum total of all reality, a single most real being.

(*Prototypon transscendentale*).[4]

Every *concept*, with regard to what is not contained in it, is undetermined, and stands under the principle of *determinability*: that of *every two* contradictorily opposed predicates only one can belong to it. This principle rests on the principle of contradiction, and is therefore a merely logical principle, which abstracts from all content of cognition and has nothing in view but its logical form.

Every *thing*, however, as regards its possibility, stands in addition under the principle of *thoroughgoing* determination, according to which, of *all possible* predicates of *things*, insofar as they are compared with their opposites, one must belong to it. This does not rest merely on the principle of contradiction. For besides the relation of two mutually conflicting predicates, it also considers every thing in relation to *the whole of possibility*, as the sum total of all predicates of things in general. And in presupposing this as a condition *a priori*, it represents every thing as deriving its own possibility from the share [386] it has in that whole of possibility.[5] The principle of thoroughgoing determination thus concerns content, and not merely logical form. It is the principle of the synthesis of all predicates that are to make up

4 Latin: transcendental prototype, or original image.

5 KANT'S NOTE. Through this principle, then, every thing is referred to a common correlate, namely the whole of possibility. If this (that is, the material for all possible predicates) were found in the idea of a single thing, it would prove an affinity of everything possible, through the identity of the ground of its thoroughgoing determination. The *determinability* of every *concept* is subordinate to the *universality* (*universalitas*) of the principle of excluded middle between two opposed predicates; but the *determination* of a *thing* is subordinate to the *allness* (*universitas*), or the sum total of all possible predicates.

TRANSLATOR'S NOTE. *Universalitas, universitas* (Latin): universality (holding for every case), totality (the whole taken together).

the complete concept of a thing, and not merely of analytic representation through one of two opposed predicates. And it contains a transcendental presupposition, namely that of the material for *all possibility*, which is supposed to contain *a priori* the *data* for the *particular* possibility of each thing.

The proposition *Everything existing is thoroughly determined* means not only that of every pair of opposed *given* predicates, but also that of all *possible* predicates, one always belongs to it. Through this proposition, predicates are not merely compared with one another logically; rather, the thing itself is compared transcendentally with the sum total of all possible predicates. It amounts to saying: to cognize a thing completely, one must cognize everything possible, and determine the thing by it, whether affirmatively or negatively. Thoroughgoing determination is consequently a concept that we can never exhibit *in concreto* in its totality. It is therefore grounded on an idea that has its seat solely in reason, which prescribes to the understanding the rule of its complete use.

Now this idea of the *sum total of all possibility*, insofar as it lies at the basis as the condition of the thoroughgoing determination of every thing, is itself still undetermined with regard to the predicates that may make it up, and through it we think nothing more than a sum total of all possible predicates in general. Yet on closer investigation we find that this idea, as an original concept, casts out a multitude of predicates: those that are already given as derived through others, or that cannot stand beside one another. We find that it refines itself into a [387] concept thoroughly determined *a priori*, and thereby becomes the concept of an individual object that is thoroughly determined by the mere idea—and which must therefore be called an *ideal* of pure reason.

If we consider all possible predicates not merely logically but transcendentally, that is, with regard to their content, which can be thought in them *a priori*, we find that through some of them a being is represented, through others a mere non-being. Logical negation, which is indicated solely by the little word "not,"

never properly attaches to a concept, but only to its relation to another concept in a judgment. It can therefore be far from sufficient to characterize a concept with regard to its content. The expression "non-mortal" cannot at all make known that a mere non-being in the object is represented by it; it leaves all content untouched. A transcendental negation, by contrast, signifies non-being in itself. It is opposed by transcendental affirmation, which is a something whose concept in itself already expresses a being. This is therefore called reality (thinghood), because through it alone, and only as far as it reaches, are objects something (things). The opposed negation, on the other hand, signifies a mere lack, and where it alone is thought, the cancellation of every thing is represented.

Now no one can think a negation determinately without having the opposed affirmation at its basis. Someone born blind cannot form the slightest representation of darkness, because he has none of light; a person living in a state of nature has none of poverty, because he does not know prosperity.[6] The ignorant person has no concept of his ignorance, because he has none of science, and so on. Thus all concepts of negations are also derived, and the realities contain the *data* and, so to speak, the matter or transcendental content for the possibility and thoroughgoing determination of all things.

If, then, a [388] transcendental substratum is laid at the basis of thoroughgoing determination in our reason—a substratum that contains, as it were, the whole store of material from which all possible predicates of things can be taken—then this substratum is nothing other than the idea of an all of reality (*omnitudo realitatis*). All true negations are then nothing but *limits*, which they could not be called if the unlimited (the all) did not lie at their basis.[7]

6 KANT'S NOTE. The observations and calculations of the astronomers have taught us much that is admirable. But the most important thing is surely that they have uncovered for us the abyss of *ignorance*, which human reason without this knowledge could never have imagined to be so great; and reflection on it must produce a great alteration in the determination of the final aims of our use of reason.
7 *Omnitudo realitatis* (Latin): the totality of reality.

Through this entire possession of reality, however, the concept of a *thing in itself* is also represented as thoroughly determined. And the concept of an *ens realissimum* is the concept of an individual being, because of all possible opposed predicates one—namely, what belongs to being absolutely—is found in its determination. It is therefore a transcendental *ideal*, which lies at the basis of the thoroughgoing determination necessarily found in everything that exists. It constitutes the highest and complete material condition of its possibility, to which all thinking of objects in general must, as regards their content, be traced back.[8] It is also, however, the only genuine ideal of which human reason is capable. For only in this single case is a concept of a thing, universal in itself, thoroughly determined through itself and cognized as the representation of an individual.

The logical determination of a concept by reason rests on a disjunctive syllogism. In it the major premise contains a logical division (the division of the sphere of a universal concept), the minor premise restricts this sphere to one part, and the conclusion determines the concept through this part. The universal concept of a reality in general cannot be divided *a priori*, because without experience we know no determinate species of reality that would be contained under that genus. So the transcendental major premise of the thoroughgoing determination of all things is nothing other than the representation of the sum total of all reality: not merely a concept that comprehends all predicates, as regards their transcendental content, *under itself*, but one that comprehends them *within itself*. And the thoroughgoing determination of every thing rests on the restriction of this all of reality, in that some of it is ascribed to the thing and the rest excluded. This agrees with the either-or of the disjunctive major premise and with the determination [389] of the object through one of the members of this division in the minor premise. Accordingly, the use of reason by which it lays the transcendental ideal at the basis of its determination of all pos-

8 *Ens realissimum* (Latin): the most real being.

sible things is analogous to the procedure it follows in disjunctive syllogisms. This was the proposition I laid down above as the basis of the systematic division of all transcendental ideas, according to which they are generated in parallel and in correspondence with the three kinds of syllogism.

It goes without saying that for this aim of its—namely, merely to represent to itself the necessary thoroughgoing determination of things—reason does not presuppose the existence of such a being as conforms to the ideal, but only the idea of it. It does so in order to derive from an unconditioned totality of thoroughgoing determination the conditioned one, that is, that of the limited. The ideal is thus for reason the archetype (*prototypon*) of all things. All of them, as deficient copies (*ectypa*), take from it the material for their possibility; and though they come nearer to it or less near, they always fall infinitely short of reaching it.[9]

So all possibility of things (of the synthesis of the manifold as regards its content) is regarded as derived, and only the possibility of that which includes all reality within itself is regarded as original. For all negations (which are, after all, the only predicates by which everything else can be distinguished from the most real being) are mere limitations of a greater reality and ultimately of the highest reality. Hence they presuppose it, and as regards their content are merely derived from it. All the manifoldness of things is only just so many different ways of limiting the concept of the highest reality, which is their common substratum, just as all figures are possible only as different ways of limiting infinite space. Hence the object of its ideal, which is found merely in reason, is also called the *original being* (*ens originarium*); insofar as it has none above it, the *highest being* (*ens summum*); and insofar as everything, as conditioned, stands under it, the *being of all beings* (*ens entium*). All this, however, signifies not the objective relation of an actual object to other things, but that of an *idea* to *concepts*; and it leaves us in com-

9 *Prototypon, ectypa* (Greek terms in Latin form): original model, copies struck from it.

plete ignorance as to the existence of a being of such exceptional preeminence.

Since one also cannot say that an original being consists of many derived [390] beings—for each of them presupposes it, and so cannot constitute it—the ideal of the original being will also have to be thought as simple.

Strictly speaking, therefore, the derivation of all other possibility from this original being cannot be regarded as a *limitation* of its highest reality and, as it were, a *division* of it either. For then the original being would be regarded as a mere aggregate of derived beings, which by the foregoing is impossible—even though we so represented it at first, in our first rough sketch. Rather, the highest reality would lie at the basis of the possibility of all things as a *ground*, and not as a *sum total*. And the manifoldness of things would rest not on the limitation of the original being itself but on its complete consequence. To this consequence our entire sensibility would then also belong, together with all reality in appearance, which cannot belong to the idea of the highest being as an ingredient.

If we now pursue this idea of ours further by hypostatizing it, we will be able to determine the original being, through the mere concept of the highest reality, as one, simple, all-sufficient, eternal, and so on—in a word, to determine it in its unconditioned completeness through all the predicaments. The concept of such a being is that of *God*, thought in the transcendental sense; and so the ideal of pure reason is the object of a transcendental *theology*, as I indicated above as well.

This use of the transcendental idea, however, would already overstep the boundaries of its vocation and admissibility. For reason laid it at the basis of the thoroughgoing determination of things in general only as the *concept* of all reality, without demanding that all this reality be objectively given and itself constitute a thing. This latter is a mere fiction, through which we gather up and realize the manifold of our idea in an ideal, as a particular being. We have no warrant for this—not even to assume outright the possibility of such a hypothesis. Nor,

accordingly, do any of the consequences flowing from such an ideal have anything to do with the thoroughgoing determination of things in general, for the sake of which alone the idea was needed; they have not the least influence on it.

HOW REASON COMES TO HYPOSTATIZE THE IDEAL

Kant traces the ideal to a principle valid only for appearances, mistaken for one valid of all things.

391 It is not enough to describe the procedure of our reason and its dialectic; one must also try to discover its sources, in order to be able to explain this illusion itself as a phenomenon of the understanding. For the ideal we are speaking of is grounded on a natural idea, not a merely arbitrary one. So I ask: how does reason come to regard all possibility of things as derived from a single possibility lying at their basis, namely that of the highest reality, and then to presuppose this as contained in a particular original being?

The answer offers itself of its own accord from the discussions of the Transcendental Analytic. The possibility of objects of the senses is a relation of these objects to our thinking. In it something (namely the empirical form) can be thought *a priori*; but what constitutes the matter, the reality in appearance (what corresponds to sensation), must be given—without it, the object could not be thought at all, and so its possibility could not be represented. Now an object of the senses can be thoroughly determined only if it is compared with all the predicates of appearance and represented through them affirmatively or negatively. In this, however, what constitutes the thing itself (in appearance), namely the real, must be given, without which it could not be thought at all. And that in which the real of all appearances is given is the one all-encompassing experience. So the matter for the possibility of all objects of the senses must be presupposed as given in a sum total, and on the limitation of this sum total alone can all possibility of empirical objects, their distinction from one another, and their thoroughgoing determ-

ination rest. Now in fact no objects can be given to us but those of the senses, and nowhere but in the context of a possible experience. Consequently nothing is an object *for us* unless it presupposes the sum total of all empirical reality as the condition of its possibility. Through a natural illusion, we now take this to be a principle that must hold of all things in general, whereas it properly holds only of those that are given as objects of our senses. Consequently, by leaving out this limitation, we will take the empirical principle of our concepts of the possibility of things as appearances for a transcendental principle of the possibility of things in general.

392 That we afterward hypostatize this idea of the sum total of all reality comes about as follows. We dialectically transform the *distributive* unity of the understanding's use in experience into the *collective* unity of a whole of experience; and in this whole of appearance we think for ourselves an individual thing that contains all empirical reality within itself. This thing is then, by means of the transcendental subreption already mentioned, confused with the concept of a thing that stands at the head of the possibility of all things and supplies the real conditions for their thoroughgoing determination.[10]

SECTION 3. REASON'S GROUNDS FOR INFERRING A HIGHEST BEING

From the need for something unconditionally necessary, reason settles on the most real being as its bearer.

Reason has this pressing need to presuppose something that could lie completely at the basis of the understanding's thoroughgoing determination of its concepts. Yet it notices the ideal

10 KANT'S NOTE. This ideal of the most real being, then, although it is a mere representation, is first *realized*, that is, made into an object; then *hypostatized*; and finally, through a natural progress of reason toward the completion of unity, even *personified*, as we shall soon show. For the regulative unity of experience rests not on the appearances themselves (on sensibility alone) but on the connection of their manifold through the *understanding* (in one apperception). Hence the unity of the highest reality and the thoroughgoing determinability (possibility) of all things seem to lie in a highest understanding, and so in an *intelligence*.

and merely invented character of such a presupposition far too easily to be persuaded by this alone to take a mere self-made creature of its own thinking straightaway for an actual being—were it not driven by something else. What drives it is the need to seek somewhere a resting place in the regress from the conditioned, which is given, to the unconditioned. The unconditioned is not given as actual in itself and according to its mere concept; but it alone can complete the series of conditions carried out to their grounds. This, then, is the natural course that every human reason, even the most common, takes, although not every one [393] holds out in it. It begins not from concepts but from common experience, and so lays something existing at the basis. But this ground sinks unless it rests on the immovable rock of the absolutely necessary. This rock itself, however, floats without support if there is still empty space outside and beneath it—unless it itself fills everything, and so leaves no more room for a *why*; that is, unless it is infinite in reality.

If something, whatever it may be, exists, then it must also be granted that something exists *necessarily*. For the contingent exists only under the condition of something else as its cause, and the same inference holds of this cause in turn, until we reach a cause that is not contingent, and that for this very reason is there necessarily and without condition. This is the argument on which reason grounds its advance to the original being.

Now reason looks around for the concept of a being that would suit such a preeminence of existence as unconditioned necessity. It does so not in order then to infer its existence *a priori* from its concept (for if it trusted itself to do that, it would need only to search among mere concepts, and would have no need to lay a given existence at the basis), but only in order to find, among all concepts of possible things, the one that contains nothing in conflict with absolute necessity. For that something or other must exist with absolute necessity it already takes to be settled by the first inference. Now if it can remove everything that is incompatible with this necessity except one

thing, then this is the absolutely necessary being—whether or not one can comprehend its necessity, that is, derive it from its concept alone.

Now that whose concept contains within itself the *therefore* to every *why*, which is defective in no respect and no regard, which suffices as a condition everywhere, seems for this very reason to be the being suited to absolute necessity. For since it possesses in itself all the conditions for everything possible, it itself needs no condition, and is not even capable of one. Consequently it satisfies the concept of unconditioned necessity at least in one respect, and in this no other concept can equal it: every other concept, because it is deficient and in need of completion, shows no such mark of independence from all further conditions. It is true that it cannot yet [394] be safely inferred from this that what does not contain within itself the highest condition, complete in every respect, must therefore itself be conditioned in its existence. But then it does not have in it the one characteristic of unconditioned existence that reason has at its command for cognizing some being as unconditioned through a concept *a priori*.

Among all concepts of possible things, then, the concept of a being of the highest reality would best suit the concept of an unconditionally necessary being. And even if it does not fully satisfy that concept, we still have no choice; we find ourselves compelled to hold to it. For we must not throw the existence of a necessary being to the winds; yet if we grant it, we can find nothing in the whole field of possibility that could make a better-grounded claim to such preeminence in existence.

Such, then, is the natural course of human reason. First it convinces itself of the existence of *some* necessary being or other. In this it recognizes an unconditioned existence. Then it seeks the concept of what is independent of every condition, and finds it in that which is itself the sufficient condition for everything else, that is, in what contains all reality. But the all without limits is absolute unity, and carries with it the concept of a single being, namely the highest being. And so reason con-

cludes that the highest being, as the original ground of all things, exists with absolute necessity.

A certain soundness cannot be denied to this concept when it is a matter of *decisions*—that is, once the existence of some necessary being is granted, and it is agreed that one must take sides as to where one will place it. For then one cannot choose more fittingly; or rather, one has no choice, but is compelled to cast one's vote for the absolute unity of complete reality as the original source of possibility. But if nothing drives us to decide, and we would rather leave this whole matter undecided until we were compelled to assent by the full weight of the grounds of proof, that is, if it is merely a matter of *judging* how much we know about this problem and what we only flatter ourselves that we know, then the above inference appears in a far less advantageous shape, and needs favor to make up for the deficiency of its legal claims.

[395] For let us allow everything to stand as it lies here before us: first, that from some given existence or other (perhaps merely my own) a correct inference can be drawn to the existence of an unconditionally necessary being; second, that I must regard a being that contains all reality, and hence also every condition, as absolutely unconditioned, and consequently that the concept of the thing suited to absolute necessity has thereby been found. Even so, it cannot at all be inferred from this that the concept of a limited being, one that does not have the highest reality, therefore contradicts absolute necessity. For although I do not meet in its concept the unconditioned that already carries the all of conditions with it, it still cannot at all be inferred from this that its existence must for that very reason be conditioned. Just so, in a hypothetical syllogism I cannot say: where a certain condition (here, namely, that of completeness according to concepts) is not, there the conditioned is not either. Rather, we will remain free to let all the other limited beings count just as well as unconditionally necessary, even though we cannot infer their necessity from the universal concept we have of them. In this way, however, the argument would not have provided us with

the slightest concept of the properties of a necessary being, and would have accomplished nothing at all.

Nevertheless this argument retains a certain importance and an authority that cannot at once be taken from it on account of this objective insufficiency. For suppose there were obligations that would be entirely correct in the idea of reason, but without any reality of application to ourselves, that is, without incentives, unless a highest being were presupposed that could give effect and emphasis to the practical laws. Then we would also have an obligation to follow the concepts that, even if they might not be objectively sufficient, are still preponderant by the measure of our reason, and in comparison with which we cognize nothing better or more convincing. The duty to choose would here tip the balance of speculation's indecision by a practical addition. Indeed, reason would find no justification before itself, as the most indulgent judge, if under urgent motives it had not followed these grounds of its judgment—defective as our insight may be—than which we at least know none better.

[396] This argument, although it is in fact transcendental, since it rests on the inner insufficiency of the contingent, is nevertheless so simple and natural that it is suited to the most common human sense as soon as this is once led to it. We see things alter, come into being, and pass away; so they, or at least their state, must have a cause. But of every cause that may ever be given in experience, the same question can be asked again. Where, then, could we more fairly locate the *supreme* causality than where the *highest* causality also is—that is, in that being which originally contains within itself the sufficiency for every possible effect, and whose concept is also very easily brought about through the single trait of an all-encompassing perfection? This highest cause, then, we take to be absolutely necessary, because we find it absolutely necessary to ascend to it, and find no ground for going on beyond it. Hence among all peoples, even through their blindest polytheism, we see some sparks of monotheism shimmering through. What has led them to it is not reflection

and deep speculation, but only a natural course of the common understanding that has gradually become intelligible to itself.

ONLY THREE PROOFS ARE POSSIBLE

Kant sorts all speculative proofs of God into the physico-theological, the cosmological and the ontological.

All the paths one may take with this aim either begin from determinate experience and the particular constitution of our sensible world cognized through it, and ascend from it according to laws of causality to the highest cause outside the world; or they lay at the basis, empirically, only indeterminate experience, that is, some existence or other; or, finally, they abstract from all experience and infer, entirely *a priori* from mere concepts, the existence of a highest cause. The first proof is the *physico-theological*, the second the *cosmological*, the third the *ontological* proof. There are no more of them, and there can be no more.[11]

I will show that reason accomplishes as little on the one path (the empirical) as on the other (the transcendental), and that it spreads its wings in vain to get beyond the sensible world by the mere power of speculation. As for the order in which these kinds of proof must be submitted to examination, it will be exactly the reverse of the one [397] taken by reason as it gradually extends itself, the order in which we first placed them. For it will turn out that, although experience gives the first occasion for it, it is the *transcendental concept* alone that guides reason in this striving of its, and in all such attempts sets up the goal it has proposed to itself. I will therefore begin with the examination of the transcendental proof, and afterward see what the addition of the empirical can do to increase its probative force.

11 Physico-theological proof: the argument from design, from the order and purposiveness of nature to an intelligent author.

SECTION 4. THE IMPOSSIBILITY OF AN ONTOLOGICAL PROOF

Kant argues that denying a thing's existence never contradicts its concept, since existence adds nothing to it.

From what has been said so far it is easy to see that the concept of an absolutely necessary being is a pure concept of reason, that is, a mere idea, whose objective reality is far from being proved by the fact that reason needs it. It also only points toward a certain completeness, albeit an unattainable one, and properly serves more to set bounds to the understanding than to extend it to new objects. Now here we find something strange and absurd: the inference from a given existence in general to some absolutely necessary existence seems to be compelling and correct, and yet we have all the conditions of the understanding for forming a concept of such a necessity entirely against us.

People have at all times spoken of the *absolutely necessary* being, and have taken pains not so much to understand whether and how one could even think a thing of this kind as to prove its existence. Now a nominal definition of this concept is quite easy: it is something whose non-being is impossible. But this leaves us none the wiser about the conditions that make it impossible to regard the non-being of a thing as absolutely unthinkable—and these conditions are really what we want to know, namely whether through this concept we are thinking anything at all or not. For to throw away, by means of the word *unconditioned*, all the conditions that the understanding always needs in order to regard something as [398] necessary, is far from making it intelligible to me whether I then still think something through a concept of an unconditionally necessary being, or perhaps nothing at all.

More than this: people have believed that they could explain this concept—ventured at random and finally grown quite familiar—through a multitude of examples as well, so that all further inquiry into its intelligibility seemed quite unnecessary.

Every proposition of geometry, for example that a triangle has three angles, is absolutely necessary; and so people spoke of an object lying entirely outside the sphere of our understanding as if they understood perfectly well what they meant by the concept of it.

All the examples offered are without exception taken only from *judgments*, not from *things* and their existence. But the unconditioned necessity of judgments is not an absolute necessity of things. For the absolute necessity of the judgment is only a conditioned necessity of the thing, or of the predicate in the judgment. The proposition above did not say that three angles are absolutely necessary, but that, under the condition that a triangle is there (is given), three angles are also necessarily there (in it). Nevertheless this logical necessity has proved so great a power of illusion that people made for themselves a concept *a priori* of a thing, set up in such a way that in their opinion it included existence within its scope, and believed they could safely infer from it as follows. Because existence necessarily belongs to the object of this concept—that is, under the condition that I posit this thing as given (existing)—its existence is also necessarily posited (according to the rule of identity). Hence this being is itself absolutely necessary, because its existence is thought along with it in a concept assumed at will, and under the condition that I posit its object.

If I cancel the predicate in an identical judgment and keep the subject, a contradiction arises; and so I say that the former belongs to the latter necessarily. But if I cancel the subject together with the predicate, no contradiction arises; for *there is no longer anything* that could be contradicted. To posit a triangle and yet cancel its three angles is contradictory; but to cancel the triangle together with its three angles is no contradiction. [399] It is exactly the same with the concept of an absolutely necessary being. If you cancel its existence, you cancel the thing itself with all its predicates. Where, then, is the contradiction to come from? Externally there is nothing that would be contradicted, for the thing is not supposed to be externally necessary. Intern-

ally there is nothing either, for by cancelling the thing itself you have cancelled everything internal at the same time. "God is omnipotent" is a necessary judgment. Omnipotence cannot be cancelled if you posit a deity, that is, an infinite being, with whose concept that predicate is identical. But if you say *God is not*, then neither omnipotence nor any other of his predicates is given; for they are all cancelled together with the subject, and this thought shows not the slightest contradiction.

You have seen, then, that if I cancel the predicate of a judgment together with the subject, an internal contradiction can never arise, whatever the predicate may be. Now no escape is left you except to say: there are subjects that cannot be cancelled at all, and so must remain. But that would be the same as saying: there are absolutely necessary subjects—the very presupposition whose correctness I have called into doubt, and whose possibility you wanted to show me. For I cannot form the slightest concept of a thing that, if it were cancelled with all its predicates, would leave behind a contradiction; and without contradiction I have, through mere pure concepts *a priori*, no mark of impossibility.

Against all these general inferences (which no one can refuse), you challenge me with a case that you put forward as a proof by the fact itself: that there is, after all, one concept—and indeed only this one—where the non-being or cancellation of its object is self-contradictory; and this is the concept of the most real being. It has, you say, all reality, and you are entitled to assume such a being as possible (which I grant for now, although a concept's not contradicting itself is far from proving

the possibility of its object).[12] Now among all reality, existence is [400] included too; so existence lies in the concept of something possible. If this thing is now cancelled, the inner possibility of the thing is cancelled, which is contradictory.

I answer: you have already committed a contradiction if, into the concept of a thing that you wanted to think merely as regards its possibility, you brought the concept of its existence, under whatever hidden name. If this is granted you, you have won the game in appearance, but in fact said nothing; for you have committed a mere tautology. I ask you: is the proposition *This or that thing* (which I grant you as possible, whatever it may be) *exists*—is this proposition, I say, analytic or synthetic? If it is the former, then by the thing's existence you add nothing to your thought of the thing. But in that case either the thought that is in you would have to be the thing itself, or you have presupposed an existence as belonging to possibility, and then allegedly inferred existence from inner possibility—which is nothing but a miserable tautology. The word "reality," which sounds different in the concept of the thing from "existence" in the concept of the predicate, does not settle the matter. For even if you call all positing (leaving undetermined what you posit) reality, you have already posited the thing with all its predicates in the concept of the subject and assumed it as actual; in the predicate you merely repeat it. If, on the other hand, you admit, as every reasonable person must in fairness admit, that every existential proposition is synthetic, how then will you maintain that the predicate of existence cannot be cancelled without con-

12 KANT'S NOTE. A concept is always possible if it does not contradict itself. That is the logical mark of possibility, and through it the concept's object is distinguished from the *nihil negativum*. But it can nonetheless be an empty concept if the objective reality of the synthesis by which the concept is generated is not specifically established. That, however, always rests, as was shown above, on principles of possible experience, and not on the principle of analysis (the principle of contradiction). This is a warning not to infer at once from the possibility of concepts (logical possibility) to the possibility of things (real possibility).

TRANSLATOR'S NOTE. *Nihil negativum* (Latin): negative nothing, the object of a self-contradictory concept.

tradiction? For this privilege belongs properly only to analytic propositions, whose character rests precisely on it.

I would indeed hope to annihilate this brooding subtlety without any circumlocution through an exact determination of the concept of existence, had I not found that the illusion in confusing a logical predicate with a real one (that is, with the determination [401] of a thing) almost refuses all instruction. Anything one likes can serve as a *logical predicate*; even the subject can be predicated of itself, for logic abstracts from all content. But a *determination* is a predicate that is added over and above the concept of the subject and enlarges it. So it must not already be contained in it.

BEING IS NOT A REAL PREDICATE

"Is" merely posits a thing; a hundred actual thalers contain no more than a hundred possible ones.

Being is obviously not a real predicate, that is, a concept of something that could be added to the concept of a thing. It is merely the positing of a thing, or of certain determinations, in themselves. In its logical use it is merely the copula of a judgment. The proposition *God is omnipotent* contains two concepts that have their objects: God and omnipotence. The little word *is* is not an additional predicate, but only what posits the predicate *in relation* to the subject. Now if I take the subject (God) together with all its predicates (among which omnipotence also belongs) and say *God is*, or there is a God, I add no new predicate to the concept of God, but only posit the subject in itself with all its predicates—and indeed posit the *object* in relation to my *concept*. Both must contain exactly the same. So nothing further can be added to the concept, which expresses mere possibility, by my thinking its object as absolutely given (through the expression "it is"). And so the actual contains nothing more than the merely possible. A hundred actual thalers do not contain the least bit more than a hundred possible ones. For since the possible thalers signify the concept, and the actual ones the object and

its positing in itself, then in case the object contained more than the concept, my concept would not express the whole object and so would not be the adequate concept of it. But in my financial state there is more with a hundred actual thalers than with the mere concept of them (that is, their possibility). For with actuality the object is not merely contained analytically in my concept, but is added synthetically to my concept (which is a determination of my state), without these thought hundred thalers themselves being in the least increased by this being outside my concept.

So when I think a thing, through whatever predicates and however many I like (even in its thoroughgoing determination), not the least is added to the thing by my further adding that this thing *is*. [402] For otherwise it would not be exactly the same thing that exists, but more than I had thought in the concept, and I could not say that precisely the object of my concept exists. Even if I think in a thing all reality except one, the missing reality is not added by my saying that such a deficient thing exists. Rather, it exists burdened with just the same deficiency with which I thought it; otherwise something other than what I thought would exist. Now if I think a being as the highest reality (without deficiency), the question still remains whether it exists or not. For although nothing is missing from my concept of the possible real content of a thing in general, something is still missing in its relation to my whole state of thinking: namely, that cognition of that object is also possible *a posteriori*. And here the cause of the difficulty prevailing in this matter also shows itself. If we were speaking of an object of the senses, I could not confuse the existence of the thing with the mere concept of the thing. For through the concept the object is thought only as agreeing with the universal conditions of a possible empirical cognition in general; through existence, however, it is thought as contained in the context of experience as a whole. Through this connection with the content of experience as a whole, the concept of the object is not in the least increased; but our thinking gains through it one more possible perception.

If, on the other hand, we want to think existence through the pure category alone, it is no wonder that we can state no mark by which to distinguish it from mere possibility.

So our concept of an object may contain whatever and however much it likes; we must still go outside it in order to confer existence on the object. With objects of the senses this happens through their connection with some one of my perceptions according to empirical laws. But for objects of pure thinking there is no means whatever of cognizing their existence, because it would have to be cognized entirely *a priori*. Our consciousness of all existence, however (whether immediately through perception, or through inferences that connect something with perception), belongs entirely to the unity of experience. And although an existence outside this field cannot be declared absolutely impossible, it is a presupposition that we can justify by nothing.

403 The concept of a highest being is in many respects a very useful idea. But precisely because it is merely an idea, it is entirely incapable of extending our cognition, by itself alone, with regard to what exists. It cannot even do so much as teach us anything further about the possibility of such a being. The analytic mark of possibility, which consists in mere positings (realities) producing no contradiction, cannot indeed be denied to this concept. But the combination of all real properties in one thing is a synthesis, and about its possibility we cannot judge *a priori*: the realities are not given to us specifically, and even if they were, no judgment at all could take place about it, because the mark of the possibility of synthetic cognitions must always be sought only in experience—to which, however, the object of an idea cannot belong. So the famous Leibniz fell far short of accomplishing what he flattered himself he had done, namely gaining insight *a priori* into the possibility of so sublime an ideal being.[13]

13 Leibniz held that the ontological proof must first show that a most perfect being is possible, and claimed to do so by arguing that all perfections, as simple positive qualities, are compatible with one another.

All the trouble and labor spent on the so famous ontological (Cartesian) proof of the existence of a highest being from concepts is therefore lost. A person could no more become richer in insight from mere ideas than a merchant could become richer in wealth if, to improve his position, he tried adding a few zeros to his cash balance.[14]

SECTION 5. THE IMPOSSIBILITY OF A COSMOLOGICAL PROOF

The argument from contingency, Kant argues, silently relies on the ontological proof it claims to avoid.

It was something quite unnatural, a mere novelty of scholastic wit, to want to pick out from an entirely arbitrarily sketched idea the existence of the corresponding object itself. In fact this path would never have been tried had it not been preceded [404] by our reason's need to assume something necessary for existence in general (at which one could stop in the ascent), and had reason not been compelled—since this necessity must be unconditioned and certain *a priori*—to seek a concept that would, if possible, satisfy such a demand and make an existence cognizable entirely *a priori*. This concept people believed they had found in the idea of a most real being; and so this idea was used only for a more determinate knowledge of that which one was already otherwise convinced or persuaded must exist, namely the necessary being. Meanwhile this natural course of reason was concealed; and instead of ending with this concept, people tried to begin from it, in order to derive from it the necessity of existence, which it was meant only to complete. From this sprang the ill-fated ontological proof, which carries with it nothing satisfying either for natural and sound understanding or for scholarly examination.

The *cosmological* proof, which we now intend to examine, retains the connection of absolute necessity with the highest

14 Descartes gave this proof in the fifth of his *Meditations* (1641); an earlier form goes back to Anselm of Canterbury (1033–1109).

reality. But instead of inferring, like the previous proof, from the highest reality to necessity in existence, it infers rather from the unconditioned necessity of some being, given in advance, to its unlimited reality. To this extent it brings everything at least onto the track of a mode of inference that is—I do not know whether rational or merely sophistical—at least natural, and that carries the most persuasion not only for the common understanding but also for the speculative one. It also visibly draws, for all the proofs of natural theology, the first outlines that people have always followed and will follow further, however much they may decorate and conceal them with foliage and flourishes. This proof, which Leibniz also called the proof *a contingentia mundi*, we will now set before our eyes and subject to examination.[15]

It runs as follows. If anything exists, then an absolutely necessary being must also exist. Now at least I myself exist; therefore an absolutely necessary being exists. The minor premise contains an experience; the major premise contains the inference from an experience in general to the existence of the necessary.[16] So the proof really begins [405] from experience, and hence is not conducted entirely *a priori*, or ontologically. And because the object of all possible experience is called the world, it is for this reason called the *cosmological* proof. Since it also abstracts from every particular property of the objects of experience by which this world may differ from any possible world, it is already distinguished by its name from the physico-theological proof, which uses observations of the particular constitution of this sensible world of ours as its grounds of proof.

The proof then infers further: the necessary being can be determined in only a single way, that is, with respect to all possible opposed predicates it can be determined by only one of them; consequently it must be *thoroughly* determined by its

15 *A contingentia mundi* (Latin): from the contingency of the world.

16 KANT'S NOTE. This inference is too well known to need a lengthy exposition here. It rests on the supposedly transcendental natural law of causality: that everything *contingent* has its cause, which, if it is contingent in its turn, must likewise have a cause, until the series of causes subordinated to one another must end with an absolutely necessary cause, without which it would have no completeness.

concept. Now only a single concept of a thing is possible that determines it thoroughly *a priori*, namely that of the *ens realissimum*. So the concept of the most real being is the only one through which a necessary being can be thought; that is, a highest being exists necessarily.

So many sophistical principles come together in this cosmological argument that speculative reason seems to have summoned up all its dialectical art here to produce the greatest possible transcendental illusion. We will set the examination of them aside for a while, however, in order to expose just one of reason's ruses: it puts forward an old argument in disguise as a new one, and appeals to the agreement of two witnesses—a witness of pure reason and another with empirical credentials—when it is really only the first alone, who merely changes his clothes and his voice in order to be taken for a second. To lay its foundation quite securely, this proof takes its stand on experience, and so gives itself the appearance of being different from the ontological proof, which places its entire trust in nothing but pure concepts *a priori*. But the cosmological proof uses this experience only to take a single step, namely to the existence of a necessary being in general. What properties this being has, the [406] empirical ground of proof cannot teach; here reason takes leave of it entirely and investigates behind mere concepts—namely, what properties an absolutely necessary being in general must have, that is, which among all possible things contains within itself the conditions required (*requisita*) for absolute necessity. Now reason believes it finds these requisites solely and exclusively in the concept of a most real being, and it then infers: this is the absolutely necessary being. But it is clear that one here presupposes that the concept of a being of the highest reality fully satisfies the concept of absolute necessity in existence—that is, that one can infer from the former to the latter. This is a proposition the ontological argument asserted; so one assumes it in the cosmological proof and makes it the foundation, although one had wanted to avoid it. For absolute necessity is an existence from mere concepts. Now if I say that the

concept of the *ens realissimum* is such a concept—indeed the only one that fits necessary existence and is adequate to it—then I must also grant that necessary existence can be inferred from it. So it is really only the ontological proof from nothing but concepts that contains all the probative force in the so-called cosmological proof; and the alleged experience is entirely idle. Perhaps it serves only to lead us to the concept of absolute necessity, but not to establish that necessity in any determinate thing. For as soon as that is our aim, we must immediately abandon all experience and search among pure concepts for one that contains the conditions of the possibility of an absolutely necessary being. But if the possibility of such a being is only understood in this way, then its existence is established as well. For this is as much as to say: among everything possible there is one thing that carries absolute necessity with it; that is, this being exists with absolute necessity.

All deceptions in inference are most easily exposed when they are set out in proper scholastic form. Here is such a presentation.

If the proposition "every absolutely necessary being is at the same time the most real being" is correct (and it is the *nervus probandi* of the cosmological proof), then, like all affirmative judgments, it must at least be convertible *per accidens*: thus, "some most real beings are at the same time absolutely necessary beings." But one *ens realissimum* [407] differs from another in no respect whatever, so what holds of *some* beings contained under this concept holds also of *all*. Consequently (in this case) I shall also be able to convert it *simply*: that is, every most real being is a necessary being.[17] Now because this proposition is determined merely from its concepts *a priori*, the mere concept of the most real being must also carry with it the absolute necessity of that being. This is exactly what the ontological proof asserted and what the cosmological proof refused to acknow-

17 *Nervus probandi*: Latin, "the nerve of the proof," its decisive premise. Conversion *per accidens* (by limitation) turns "All A are B" into "Some B are A"; simple conversion yields "All B are A."

ledge, yet slipped underneath its inferences all the same, though in a concealed way.

So the second path that speculative reason takes to prove the existence of the highest being is not only just as deceptive as the first; it has this further fault, that it commits an *ignoratio elenchi*. It promises to lead us along a new footpath, but after a small detour it brings us back again to the old one, which we had left for its sake.[18]

THE NEST OF DIALECTICAL PRESUMPTIONS

Kant lists the illegitimate principles hidden in the cosmological argument.

I said a little earlier that in this cosmological argument a whole nest of dialectical presumptions lies hidden, which transcendental critique can easily discover and destroy. I will now merely list them and leave it to the reader, who by now is practiced, to investigate the deceptive principles further and to remove them.

We find here, for example: 1) The transcendental principle of inferring from the contingent to a cause. This principle has significance only in the sensible world; outside it, it has not even a sense. For the merely intellectual concept of the contingent cannot produce any synthetic proposition at all, such as that of causality; and the principle of causality has no significance whatever, and no criterion of its use, except in the sensible world. Here, however, it was supposed to serve precisely to get beyond the sensible world. 2) The principle of inferring a first cause from the impossibility of an infinite series of causes given one above another in the sensible world. The principles of the use of reason do not entitle us to this inference even within experience, much less can we extend this principle beyond experience (where this chain cannot be prolonged at all). 3) The false self-satisfaction of reason with regard to the completion of this series. One finally does away with every condition—though

18 *Ignoratio elenchi*: Latin, "ignorance of the refutation," the logical fallacy of proving something other than what was at issue.

without a condition no concept of necessity can take place—and then, since one can comprehend nothing further, one takes this for a completion of one's concept. 4) The [408] confusion of the logical possibility of a concept of all reality united together (without inner contradiction) with its transcendental possibility. The latter requires a principle of the feasibility of such a synthesis, which, however, can in turn apply only to the field of possible experiences; and so on.

The trick of the cosmological proof aims solely at avoiding a proof of the existence of a necessary being *a priori* through mere concepts, which would have to be conducted ontologically—something we feel wholly incapable of doing. With this aim we infer, as best we can, from an actual existence taken as the foundation (an experience in general) to some absolutely necessary condition of it. We then have no need to explain the possibility of this condition. For if it has been proved that it exists, the question of its possibility is entirely unnecessary. Now if we want to determine this necessary being more closely as to its nature, we do not look for what is sufficient to make the necessity of its existence comprehensible from its concept. For if we could do that, we would need no empirical presupposition. No, we look only for the negative condition (*conditio sine qua non*) without which a being would not be absolutely necessary.[19] This would work well enough in every other kind of inference from a given consequence to its ground. But here, unfortunately, it happens that the condition required for absolute necessity can be found in only a single being. That being would therefore have to contain in its concept everything required for absolute necessity, and so would make possible an inference *a priori* to that necessity. That is, I would also have to be able to infer conversely: whatever thing this concept (of the highest reality) belongs to is absolutely necessary. And if I cannot infer in this way (as I must admit, if I want to avoid the ontological proof), then I have come to grief on my new path as well, and find

19 *Conditio sine qua non*: Latin, "condition without which not," an indispensable condition.

myself back where I started. The concept of the highest being may well satisfy all questions *a priori* that can be raised about the inner determinations of a thing. For this reason it is also an ideal without equal, since the universal concept at the same time distinguishes it as an individual among all possible things. But it does not satisfy at all the question of its own existence—which was the only real point. And to someone who assumed the existence of a necessary being and wanted [409] to know which of all things must be regarded as that being, one could not answer: "This here is the necessary being."

It may well be permissible to *assume* the existence of a being of the highest sufficiency as the cause of all possible effects, in order to ease reason's search for the unity of explanatory grounds. But to take such liberties as even to say, "*such a being exists necessarily*," is no longer the modest expression of a permissible hypothesis but the brazen presumption of apodictic certainty. For whatever one claims to cognize as absolutely necessary, the cognition of it must also carry absolute necessity with it.

The whole problem of the transcendental ideal comes down to this: either to find a concept for absolute necessity, or to find, for the concept of some thing, the absolute necessity of that thing. If one can do the one, one must be able to do the other as well; for reason cognizes as absolutely necessary only what is necessary from its concept. But both tasks entirely exceed our utmost efforts to *satisfy* our understanding on this point—and also all attempts to set it at ease about this incapacity of its own.

Unconditioned necessity, which we so indispensably need as the ultimate bearer of all things, is the true abyss for human reason. Even eternity, however terrifyingly sublime a *Haller* may portray it, makes nothing like the same dizzying impression on the mind; for it only *measures* the duration of things, it does not *bear* them. One cannot fend off the thought, yet one cannot bear it either, that a being which we represent to ourselves as the highest among all possible beings should, as it were, say to itself: "I am from eternity to eternity; outside me

there is nothing except what is something merely through my will; *but where, then, do I come from?*"[20] Here everything gives way beneath us. The greatest perfection, like the smallest, hovers without support before speculative reason alone, which finds it costs nothing to let the one, just like the other, vanish without the slightest hindrance.

Many forces of nature that express their existence through certain effects remain inscrutable to us, for we cannot track them far enough by observation. The transcendental object underlying appearances, and with it the ground why our sensibility has these rather than other supreme conditions, [410] are and remain inscrutable to us, although the thing itself is otherwise given, only not understood. But an ideal of pure reason cannot be called *inscrutable*, because it has no further credentials of its reality to show than reason's need to complete all synthetic unity by means of it. Since, then, it is not even given as a thinkable object, it is not inscrutable as such an object either. Rather, as a mere idea it must find its seat and its resolution in the nature of reason, and so must be capable of being investigated. For reason consists precisely in this: that we can give an account of all our concepts, opinions, and assertions, whether on objective grounds or, if they are a mere illusion, on subjective ones.

THE DIALECTICAL ILLUSION IN THE PROOFS OF A NECESSARY BEING

Necessity and contingency are shown to be subjective, regulative principles of reason, not properties of things.

Both proofs conducted so far were attempted transcendentally, that is, independently of empirical principles. For although the cosmological proof takes an experience in general as its foundation, it is not conducted from any particular constitution of that experience, but from pure principles of reason in relation to an existence given through empirical consciousness in general;

20 Albrecht von Haller (1708–1777), Swiss physiologist and poet, whose unfinished "Ode on Eternity" (1736) Kant admired.

and it even abandons this guidance in order to rely on nothing but pure concepts. What, then, in these transcendental proofs, is the cause of the dialectical but natural illusion that connects the concepts of necessity and highest reality, and realizes and hypostatizes what can only be an idea? What is the cause of the unavoidability of assuming something among existing things as necessary in itself, while at the same time shrinking back from the existence of such a being as from an abyss? And how is reason to come to understand itself on this matter, and pass from the wavering state of a timid assent, always withdrawn again, to calm insight?

It is something exceedingly remarkable that, once one presupposes that something exists, one cannot avoid the conclusion that something or other also exists necessarily. On this entirely natural (though not for that reason secure) inference the cosmological argument rested. [411] On the other hand, take any concept of a thing I please, and I find that its existence can never be represented by me as absolutely necessary, and that nothing prevents me, whatever may exist, from thinking its non-existence. Consequently, while I must indeed assume something necessary for what exists in general, I cannot think any single thing itself as necessary in itself. That is: I can never *complete* the regress to the conditions of existing without assuming a necessary being; but I can never *begin* from it.

If I must think something necessary for existing things in general, but am not entitled to think any thing in itself as necessary, then it follows unavoidably that necessity and contingency cannot concern or apply to the things themselves, since otherwise a contradiction would arise. Consequently neither of these two principles is objective; at most they can be only subjective principles of reason. The one directs us to seek, for everything given as existing, something that is necessary, that is, never to stop anywhere short of an explanation completed *a priori*. The other directs us never to hope for this completion, that is, not to assume anything empirical as unconditioned and thereby exempt ourselves from further derivation. Taken in this sense,

the two principles, as merely heuristic and *regulative*, attending to nothing but the formal interest of reason, can very well stand side by side. For the one says: you are to philosophize about nature *as if* there were a necessary first ground for everything that belongs to existence, solely in order to bring systematic unity into your cognition by pursuing such an idea, namely an imagined supreme ground. The other, however, warns you not to take any single determination concerning the existence of things for such a supreme ground, that is, as absolutely necessary, but always to keep the way open to further derivation and therefore to treat each determination as still conditioned. But if everything perceived in things must be regarded by us as conditionally necessary, then no thing (that may be given empirically) can be regarded as absolutely necessary either.

It follows from this, however, that you must assume the absolutely necessary *outside the world*. For it is only to serve as a principle of the greatest possible unity of appearances, as their supreme ground, [412] and you can never reach it *in the world*, because the second rule commands you always to regard all empirical causes of unity as derived.

The philosophers of antiquity regarded all form in nature as contingent, but matter, following the judgment of common reason, as original and necessary. But had they considered matter not relatively, as the substratum of appearances, but *in itself*, as to its existence, the idea of absolute necessity would at once have vanished. For there is nothing that binds reason absolutely to this existence; reason can always cancel it in thought, without contradiction—and it was in thought alone that the absolute necessity lay. Some regulative principle, then, must have underlain this persuasion. In fact extension and impenetrability (which together make up the concept of matter) are also the supreme empirical principle of the unity of appearances, and insofar as this principle is empirically unconditioned it has in itself a property of the regulative principle. Nevertheless, every determination of matter that makes up what is real in it—and hence impenetrability too—is an effect (an action), which must

have its cause and so is always still derived. Matter is therefore not suited to the idea of a necessary being as a principle of all derived unity. For each of its real properties, as derived, is only conditionally necessary and so can in itself be cancelled; but with this the whole existence of matter would be cancelled. And if this did not happen, we would have reached the highest ground of unity empirically, which is forbidden by the second regulative principle. It follows that matter, and in general whatever belongs to the world, is not suited to the idea of a necessary original being as a mere principle of the greatest empirical unity, but that such a being must be posited outside the world. We can then always confidently derive the appearances of the world and their existence from other appearances, as if there were no necessary being, and yet strive unceasingly toward the completeness of the derivation, as if such a being were presupposed as a supreme ground.

According to these considerations, the ideal of the highest being is nothing other than a *regulative principle* of reason: to regard all combination in the world *as if* it sprang from an all-sufficient necessary [413] cause, in order to found on this the rule of a systematic unity, necessary according to universal laws, in explaining that combination. It is not an assertion of an existence necessary in itself. But at the same time it is unavoidable, by means of a transcendental subreption, to represent this formal principle to ourselves as constitutive and to think this unity hypostatically. Consider space. Because it originally makes possible all shapes, which are merely different limitations of it, it is taken—although it is only a principle of sensibility—for precisely that reason to be an absolutely necessary something subsisting on its own, and an object given *a priori* in itself. In just the same way it comes about quite naturally that, since the systematic unity of nature can in no way be set up as the principle of the empirical use of our reason except insofar as we take as our foundation the idea of a most real being as the supreme cause, this idea is thereby represented as an actual object, and this object in turn, because it is the supreme condi-

tion, as necessary. Thus a *regulative principle* is transformed into a *constitutive* one; and this substitution reveals itself as follows. If I now consider this supreme being, which was absolutely (unconditionally) necessary relative to the world, as a thing on its own, this necessity admits of no concept; so it must have been found in my reason only as a formal condition of thought, not as a material and hypostatic condition of existence.

SECTION 6. THE IMPOSSIBILITY OF THE PHYSICO-THEOLOGICAL PROOF

The argument from design deserves respect but yields at most an architect of the world, not a creator.

If, then, neither the concept of things in general nor the experience of any *existence in general* can accomplish what is demanded, one means still remains: to try whether a *determinate experience*—that is, the experience of the things of the present world, their constitution and arrangement—might not furnish a ground of proof that could securely help us to conviction of the existence of a highest being. We would call such a proof the *physico-theological* [414] proof. If this too should prove impossible, then no satisfactory proof at all from merely speculative reason is possible for the existence of a being corresponding to our transcendental idea.

After all the remarks above, one will soon see that the answer to this inquiry can be expected to be quite easy and conclusive. For how can any experience ever be given that would be adequate to an idea? What is peculiar to an idea is precisely that no experience can ever be congruent with it. The transcendental idea of a necessary, all-sufficient original being is so extravagantly great, so far exalted above everything empirical, which is always conditioned, that on the one hand one can never scrape together enough material in experience to fill such a concept, and on the other one always gropes about among the conditioned and will forever search in vain for the unconditioned, of which no law of any empirical synthesis gives us an example or the slightest guidance toward it.

If the highest being stood in this chain of conditions, it would itself be a member of their series, and, just like the lower members above which it is placed, it would demand further investigation into its own still higher ground. If, on the other hand, one wants to separate it from this chain and not include it, as a merely intelligible being, in the series of natural causes: what bridge can reason then build to reach it? For all laws of the transition from effects to causes—indeed all synthesis and extension of our cognition in general—are directed to nothing other than possible experience, and hence merely to objects of the sensible world, and can have significance only with respect to them.

The present world opens up to us so immeasurable a spectacle of manifoldness, order, purposiveness, and beauty—whether one pursues it in the infinity of space or in its unlimited division—that even by the knowledge our weak understanding has been able to acquire of it, all language loses its force before so many wonders of such immeasurable greatness, all numbers lose their power to measure, and even our thoughts lack all bounds. So our judgment of the whole must dissolve into a speechless but all the more eloquent astonishment. Everywhere we see a chain of effects and causes, of ends and means, regularity in coming to be and passing away. And since nothing has entered by itself into the state [415] in which it finds itself, each thing points ever further to another thing as its cause, which makes exactly the same further inquiry necessary. In this way the entire universe would have to sink into the abyss of nothingness, unless one assumed something that, subsisting on its own, originally and independently, outside this infinite contingent, sustained it and, as the cause of its origin, at the same time secured its continuance. This highest cause (with respect to all things in the world)—how great is one to think it? We do not know the world in its entire content, still less do we know how to estimate its magnitude by comparison with everything possible. But since we once need an outermost and supreme being with regard to causality, what prevents us from placing it at the

same time, as to its degree of perfection, *above everything else possible*? This we can easily accomplish, though admittedly only through the delicate outline of an abstract concept, if we represent all possible perfection as united in it as a single substance. This concept is favorable to our reason's demand for economy of principles; it is subject to no contradictions within itself; it is even conducive to the extension of the use of reason in the midst of experience, through the guidance such an idea gives toward order and purposiveness; and nowhere is it decisively contrary to any experience.

This proof always deserves to be named with respect. It is the oldest, the clearest, and the one best suited to common human reason. It enlivens the study of nature, just as it has its own existence from that study and constantly draws new strength from it. It brings ends and purposes to places where our observation would not have discovered them by itself, and it extends our knowledge of nature by the guiding thread of a particular unity whose principle lies outside nature. This knowledge in turn reacts upon its cause, namely the idea that occasioned it, and increases belief in a highest author to the point of an irresistible conviction.

It would therefore be not only disheartening but also entirely futile to try to detract anything from the authority of this proof. Reason is ceaselessly lifted up by such powerful grounds of proof—grounds that keep growing in its hands, even though they are only empirical. It cannot be so depressed by any doubts of subtle, abstract speculation [416] that it would not be torn out of every brooding irresolution, as out of a dream, by a single glance at the wonders of nature and the majesty of the cosmic structure, so as to raise itself from magnitude to magnitude up to the very highest, from the conditioned to its condition up to the supreme and unconditioned author.

But although we have nothing to object to the reasonableness and usefulness of this procedure, and should rather recommend and encourage it, we still cannot approve the claims this kind of proof would like to make to apodictic certainty, and to an assent

that needs no favor or outside support whatever. And it can in no way harm the good cause to tone down the dogmatic language of the scornful sophist to the moderate and modest tone of a belief that suffices for reassurance, even if it does not command unconditional submission. I therefore maintain that the physico-theological proof can never establish the existence of a highest being by itself alone, but must always leave it to the ontological proof (for which it serves only as an introduction) to make up for this deficiency. Consequently the ontological proof still contains the *only possible ground of proof* (provided any speculative proof is possible at all), which no human reason can pass by.

The main points of the physico-theological proof in question are these. 1) In the world we find everywhere clear signs of an arrangement according to a determinate purpose, carried out with great wisdom, and in a whole of indescribable manifoldness of content as well as unlimited magnitude of extent. 2) This purposive arrangement is entirely foreign to the things of the world and attaches to them only contingently. That is, the nature of different things could not of itself have harmonized, through so many combining means, toward determinate final purposes, had they not been quite expressly chosen and designed for this by an ordering rational principle according to underlying ideas. 3) There exists, therefore, a sublime and wise cause (or several), which must be the cause of the world not merely as blindly working, all-powerful nature, through *fecundity*, but as an intelligence, through *freedom*. 4) The unity of this cause can be inferred from the unity of the reciprocal relation of the parts of the world, as members of an artful edifice—with certainty as far as our observation [417] reaches, and beyond that with probability, according to all principles of analogy.

Natural reason infers from the analogy of some products of nature with what human art produces when it does violence to nature and forces it not to proceed according to its own ends but to bend itself to ours (from their similarity to houses, ships, clocks), that just such a causality, namely understanding and

will, must underlie nature. In doing so it derives the inner possibility of freely working nature (which first makes possible all art, and perhaps even reason itself) from yet another, though superhuman, art. This mode of inference might perhaps not withstand the sharpest transcendental critique. But without quibbling here with natural reason over its inference, one must still admit that if we are to name a cause at all, we cannot proceed more securely here than by analogy with such purposive productions, which are the only ones whose causes and manner of working are fully known to us. Reason could not answer to itself if it chose to pass from the causality it knows to obscure and indemonstrable grounds of explanation that it does not know.

According to this inference, the purposiveness and harmony of so many arrangements of nature would have to prove merely the contingency of the form, but not of the matter, that is, of the substance in the world. For the latter it would further be required that one could prove that the things of the world would in themselves be unfit for such order and harmony according to universal laws if they were not, even *in their substance*, the product of a highest wisdom. But for that, quite different grounds of proof would be required than those from the analogy with human art. So the proof could at most establish an *architect of the world*, who would always be very much limited by the suitability of the material he works on, but not a *creator of the world*, to whose idea everything is subject. That is far from sufficient for the great aim one has in view, namely to prove an all-sufficient original being. If we wanted to prove the contingency of matter itself, we would have to take refuge in a transcendental argument—which is exactly what was supposed to be avoided here.

The inference thus proceeds from the order and purposiveness observable so thoroughly throughout the world, as an entirely contingent arrangement, [418] to the existence of a cause *proportionate to it*. But the concept of this cause must give us something entirely *determinate* to cognize about it, and so it can

be none other than the concept of a being that possesses all power, wisdom, and so on—in a word, all perfection—as an all-sufficient being. For the predicates of *very great*, of astonishing, of immeasurable power and excellence give no determinate concept at all and do not really say what the thing is in itself. They are only relational representations of the magnitude of the object, which the observer (of the world) compares with himself and his capacity of comprehension, and they come out equally exalting whether one enlarges the object or makes the observing subject smaller in relation to it. Where it is a matter of the magnitude (of the perfection) of a thing in general, there is no determinate concept except the one that comprehends the whole of possible perfection; and only the totality (*omnitudo*) of reality is thoroughly determined in its concept.

Now I would not expect anyone to venture to claim insight into the relation of the magnitude of the world he has observed (in extent as well as content) to omnipotence, of the world's order to the highest wisdom, of the world's unity to the absolute unity of its author, and so on. So physico-theology can give no determinate concept of the supreme cause of the world, and hence cannot suffice as a principle of theology, which in turn is supposed to form the foundation of religion.

The step to absolute totality is utterly impossible by the empirical path. Yet in the physico-theological proof one takes it all the same. What means, then, does one use to get across so wide a chasm?

Having come as far as admiring the greatness of the wisdom, the power, and so on, of the author of the world, and being unable to get any further, one suddenly abandons this argument, conducted through empirical grounds of proof, and turns to the contingency of the world, inferred right at the start from its order and purposiveness. From this contingency alone one now proceeds, solely through transcendental concepts, to the existence of something absolutely necessary, and from the concept of the absolute necessity of the first cause to the thoroughly determined or determining concept of it, namely that of

an all-encompassing reality. So the physico-theological proof got stuck in its undertaking, and in this embarrassment suddenly jumped over to the cosmological proof. [419] And since the latter is only a disguised ontological proof, it actually accomplished its aim merely through pure reason, although at the outset it had disowned all kinship with pure reason and staked everything on evident proofs from experience.

The physico-theologians therefore have no reason at all to be so standoffish toward the transcendental mode of proof, or to look down on it, with the conceit of clear-sighted students of nature, as the cobweb of obscure brooders. For if only they would examine themselves, they would find this. After advancing a good way on the ground of nature and experience, and still seeing themselves just as far from the object that seems to beckon their reason, they suddenly abandon this ground and pass over into the realm of mere possibilities, where they hope on the wings of ideas to come near to what had eluded all their empirical searching. When at last, by so mighty a leap, they suppose they have gained a firm foothold, they spread the now determinate concept (which they have come to possess without knowing how) over the whole field of creation. And they illustrate the ideal, which was solely a product of pure reason, by means of experience—though meagerly enough, and far beneath the dignity of its object—without being willing to admit that they arrived at this knowledge or presupposition by a footpath other than that of experience.

Thus the physico-theological proof is grounded on the cosmological, and the cosmological on the ontological proof of the existence of a single original being as the highest being. And since apart from these three paths no other is open to speculative reason, the ontological proof from nothing but pure concepts of reason is the only possible one—if any proof at all is possible of a proposition so far exalted above all empirical use of the understanding.

SECTION 7. CRITIQUE OF ALL THEOLOGY FROM SPECULATIVE PRINCIPLES

Kant classifies the kinds of theology and argues that speculative reason can neither prove nor disprove a highest being.

[420] If by theology I understand the cognition of the original being, it is either cognition from mere reason (*theologia rationalis*) or from revelation (*revelata*). Rational theology in turn thinks its object either merely through pure reason, by means of nothing but transcendental concepts (*ens originarium*, *realissimum*, *ens entium*), and is called *transcendental* theology; or it thinks it through a concept borrowed from nature (from our soul), as the highest intelligence, and would have to be called *natural* theology. One who admits only a transcendental theology is called a *deist*; one who also accepts a natural theology, a *theist*.[21] The deist grants that we can at any rate cognize the existence of an original being through mere reason, but holds that our concept of it is merely transcendental, namely only the concept of a being that has all reality, which, however, cannot be determined more closely. The theist asserts that reason is able to determine the object more closely by analogy with nature, namely as a being that, through understanding and freedom, contains within itself the original ground of all other things. So the deist represents by it merely a *cause of the world* (whether through the necessity of its nature or through freedom remains undecided), the theist an *author of the world*.

Transcendental theology either intends to derive the existence of the original being from an experience in general (without determining anything more closely about the world to which the experience belongs), and is called *cosmotheology*; or it believes it can cognize that being's existence through mere concepts, without the help of the slightest experience, and is called *ontotheology*.

Natural theology infers the properties and the existence of an author of the world from the constitution, order, and unity

found in this world, in which two kinds of causality and their rule must be assumed, namely nature and freedom. [421] Hence it ascends from this world to the highest intelligence, either as the principle of all natural or of all moral order and perfection. In the first case it is called *physico-theology*, in the second *moral theology*[22].

By the concept of God we are accustomed to understand not merely a blindly working eternal nature as the root of things, but a highest being that is supposed to be the author of things through understanding and freedom; and this concept alone interests us. Strictly speaking, then, one could deny the *deist* all belief in God and leave him only the assertion of an original being or supreme cause. However, since no one may be accused of wanting to deny something merely because he does not trust himself to assert it, it is gentler and fairer to say: the *deist* believes in a *God*, but the *theist* in a *living God* (*summam intelligentiam*). We will now seek out the possible sources of all these attempts of reason.[23]

Here I am content to define theoretical cognition as cognition through which I cognize *what exists*, and practical cognition as cognition through which I represent *what ought to exist*. Accordingly, the theoretical use of reason is that through which I cognize *a priori* (as necessary) that something is; the practical use, that through which it is cognized *a priori* what ought to happen. Now if either that something is, or that it ought to happen, is indubitably certain but nonetheless only conditioned, then either some determinate condition for it can be absolutely necessary, or it can be presupposed only as optional and contingent. In the first case the condition is postulated (*per thesin*), in the second it is supposed (*per hypothesin*).[24] Since there are prac-

21 *Theologia rationalis* / *revelata*: rational / revealed theology.
22 KANT'S NOTE. Not theological morality; for that contains moral laws which *presuppose* the existence of a highest ruler of the world, whereas moral theology is a conviction of the existence of a highest being that is grounded on moral laws.
23 *Summam intelligentiam*: Latin, "the highest intelligence."
24 *Per thesin* / *per hypothesin*: Latin, "by way of thesis" (laid down as necessary) / "by way of hypothesis" (merely assumed).

tical laws that are absolutely necessary (the moral laws), then if these necessarily presuppose some existence as the condition of the possibility of their *binding* force, this existence must be *postulated*. For the conditioned from which the inference to this determinate condition proceeds is itself [422] cognized *a priori* as absolutely necessary. We will show later of the moral laws that they do not merely presuppose the existence of a highest being, but also, since they are absolutely necessary in another respect, postulate it rightly—though of course only practically. For now we set this mode of inference aside.

When we speak merely of what exists (not of what ought to be), the conditioned that is given to us in experience is always thought as contingent too. So the condition belonging to it cannot be cognized from it as absolutely necessary, but serves only as a relatively necessary—or rather, *needed*—presupposition for the rational cognition of the conditioned, a presupposition that is in itself and *a priori* arbitrary. If, then, the absolute necessity of a thing is to be cognized in theoretical cognition, this could happen only from concepts *a priori*, but never as the necessity of a cause in relation to an existence given through experience.

A theoretical cognition is *speculative* if it concerns an object, or such concepts of an object, as cannot be reached in any experience. It is opposed to *cognition of nature*, which concerns no objects, or predicates of them, other than those that can be given in a possible experience.

The principle of inferring from what happens (the empirically contingent), as an effect, to a cause is a principle of the cognition of nature, but not of speculative cognition. For suppose one abstracts from it as a principle that contains the condition of possible experience in general, and, leaving out everything empirical, tries to assert it of the contingent in general. Then not the slightest justification remains for such a synthetic proposition, from which to see how I could pass from something that exists to something entirely different from it (called a cause). Indeed, in such a merely speculative use the concept of a cause, just like that of the contingent, loses all significance

whose objective reality could be made comprehensible *in concreto*.

Now if one infers from the existence of *things* in the world to their cause, this belongs not to the *natural* but to the *speculative* use of reason. For the natural use relates to some cause, as empirically contingent, not the things themselves (substances), but only what *happens*, and so their *states*. That substance itself (matter) is contingent as to its existence would have to be a merely speculative cognition of reason. [423] But even if we were speaking only of the form of the world, the manner of its combination and its change, and I wanted to infer from this to a cause entirely distinct from the world, this would again be a judgment of merely speculative reason, because the object here is not an object of a possible experience at all. But then the principle of causality, which holds only within the field of experiences and outside it is without use, indeed even without significance, would be diverted entirely from its proper function.

I now maintain that all attempts at a merely speculative use of reason with regard to theology are entirely fruitless and by their inner constitution null and void; but that the principles of its natural use lead to no theology whatever. Consequently, unless one takes moral laws as the foundation or uses them as a guiding thread, there can be no theology of reason at all. For all synthetic principles of the understanding are of immanent use, whereas the cognition of a highest being requires a transcendent use of them, for which our understanding is not equipped at all. If the empirically valid law of causality is to lead to the original being, that being would have to belong to the chain of objects of experience; but then, like all appearances, it would itself be conditioned in turn. But even if one permitted the leap beyond the boundary of experience by means of the dynamical law of the relation of effects to their causes, what concept can this procedure provide us with? Nothing remotely like a concept of a highest being, because experience never offers us the greatest of all possible effects (which is what would have to bear witness to its cause). If we are to be permitted, merely so as to

leave nothing empty in our reason, to fill this lack of complete determination with a mere idea of the highest perfection and original necessity, this may indeed be granted as a favor, but it cannot be demanded by right of an irresistible proof. The physico-theological proof might therefore perhaps lend weight to other proofs (if such are to be had), by connecting speculation with intuition. But by itself it rather prepares the understanding for theological cognition, and gives it a straight and natural direction toward it, than being able to complete the business *alone*.

[424] From this one sees clearly enough that transcendental questions permit only transcendental answers, that is, answers from nothing but concepts *a priori*, without the slightest empirical admixture. But the question here is evidently synthetic, and demands an extension of our cognition beyond all boundaries of experience, namely to the existence of a being that is to correspond to our mere idea, which no experience can ever match. Now according to our proofs above, all synthetic cognition *a priori* is possible only by expressing the formal conditions of a possible experience; and so all principles are only of immanent validity, that is, they refer solely to objects of empirical cognition, or appearances. So nothing is accomplished by the transcendental procedure either, with regard to the theology of a merely speculative reason.

But suppose someone would rather call into question all the proofs of the Analytic given above than let himself be robbed of his persuasion of the weight of arguments used for so long. Even so, he cannot refuse to meet my challenge when I ask that he at least justify himself on this point: how, and by means of what illumination, does he venture to soar beyond all possible experience by the power of mere ideas? I would ask to be spared new proofs, or reworkings of old ones. For admittedly there is not much to choose from here, since in the end all merely speculative proofs come down to a single one, namely the ontological; so I need hardly fear being particularly burdened by the fertility of the dogmatic champions of that reason freed from the senses. Moreover, without thinking myself very combative on that

account, I am willing to accept the challenge of uncovering the fallacy in every attempt of this kind and thereby thwarting its presumption. Still, the hope of better luck is never entirely abandoned by those who have once grown accustomed to dogmatic persuasions. I therefore hold to the one fair demand: that one justify oneself, universally and from the nature of the human understanding together with all other sources of cognition, as to how one proposes to go about extending one's cognition entirely *a priori*, and stretching it to where no possible experience, and hence no means, suffices to secure objective reality for any [425] concept devised by ourselves. However the understanding may have arrived at this concept, the existence of its object cannot be found analytically in it. For the cognition of the *existence* of the object consists precisely in this, that the object is posited in itself *outside the thought*. But it is entirely impossible to go out beyond a concept by oneself and, without following the empirical connection (through which, however, only appearances are ever given), to arrive at the discovery of new objects and extravagant beings.

But although reason in its merely speculative use falls far short of being adequate to so great an aim, namely to reach the existence of a supreme being, it is nonetheless of very great use in *correcting* the cognition of such a being, in case that cognition could be drawn from elsewhere: in making it consistent with itself and with every intelligible aim, and in purifying it of everything that might be contrary to the concept of an original being and of all admixture of empirical limitations.

Transcendental theology therefore, notwithstanding all its inadequacy, still has an important negative use. It is a constant censor of our reason when reason deals merely with pure ideas, which for that very reason admit no standard but a transcendental one. For suppose that at some point, in another respect—perhaps a practical one—the *presupposition* of a highest and all-sufficient being, as supreme intelligence, were to assert its validity beyond dispute. Then it would be of the greatest importance to determine this concept precisely on its transcendental

side, as the concept of a necessary and most real being; to remove whatever is contrary to the highest reality and belongs to mere appearance (to anthropomorphism in the wider sense); and at the same time to clear out of the way all opposing assertions, whether *atheistic*, *deistic*, or *anthropomorphic*. This is very easy in such a critical treatment, since the same grounds that lay bare the incapacity of human reason with regard to asserting the existence of such a being must necessarily also suffice to prove the unfitness of every counter-assertion. For where would anyone get, through pure speculation of reason, the insight that there is no highest being as the original ground of all things, [426] or that none of the properties belongs to it which, judging by their consequences, we represent to ourselves as analogous to the dynamical realities of a thinking being, or that in the latter case they would also have to be subject to all the limitations that sensibility unavoidably imposes on the intelligences we know through experience?

For the merely speculative use of reason, then, the highest being remains a mere, but nonetheless *flawless, ideal*: a concept that concludes and crowns the whole of human cognition, whose objective reality cannot, it is true, be proved in this way, but cannot be refuted either. And if there should be a moral theology that can make up for this deficiency, then transcendental theology, previously only problematic, proves its indispensability by determining its concept and by unceasingly censoring a reason that is deceived often enough by sensibility and is not always in agreement with its own ideas. Necessity, infinity, unity, existence outside the world (not as a world-soul), eternity without conditions of time, omnipresence without conditions of space, omnipotence, and so on: these are purely transcendental predicates, and for that reason the purified concept of them, which every theology so greatly needs, can be drawn only from transcendental theology.

Appendix to the Dialectic

The ideas of reason are not knowledge, but they rightly guide inquiry.

VON DEM REGULATIVEN GEBRAUCH DER IDEEN DER REINEN VERNUNFT.

The outcome of all the dialectical attempts of pure reason not only confirms what we already proved in the Transcendental Analytic—namely, that all our inferences that would lead us beyond the field of possible experience are deceptive and groundless. It also teaches us something in particular: that human reason has a natural propensity to overstep this boundary, and that transcendental ideas are just as natural to it as the categories are to the understanding. There is this difference, however: whereas the categories lead to truth, that is, to the agreement of our concepts with the object, [427] the ideas produce a mere but irresistible illusion, whose delusion can scarcely be warded off even by the sharpest critique.

Everything grounded in the nature of our powers must be purposive and consistent with their correct use, if only we can guard against a certain misunderstanding and discover their proper direction. So the transcendental ideas will in all likelihood have their good and consequently *immanent* use. Yet if their meaning is mistaken and they are taken for concepts of actual things, they can be transcendent in their application and for that very reason deceptive. For it is not the idea in itself but only its use that can be either *soaring beyond* (transcendent) or *native* (immanent) with regard to the whole of possible experience. It depends on whether one directs the idea straight at an

object supposed to correspond to it, or only at the use of the understanding in general with regard to the objects the understanding deals with. And all errors of subreption are always to be ascribed to a lack of the power of judgment, never to the understanding or to reason.

Reason never relates directly to an object, but solely to the understanding, and by means of the understanding to its own empirical use. It therefore *creates* no concepts (of objects), but only *orders* them and gives them the unity they can have in their greatest possible extension, that is, in relation to the totality of the series. The understanding does not look to this totality at all, but only to the connection *through which series* of conditions everywhere *come about* according to concepts. Reason, then, really has as its object only the understanding and its purposive employment. Just as the understanding unites the manifold in the object through concepts, so reason for its part unites the manifold of concepts through ideas: it sets a certain collective unity as the goal of the actions of the understanding, which are otherwise occupied only with distributive unity.

Accordingly, I maintain: the transcendental ideas are never of constitutive use, such that concepts of certain objects would thereby be given; and if they are understood in that way, they are merely [428] sophistical (dialectical) concepts. On the other hand, they have an excellent and indispensably necessary regulative use: namely, that of directing the understanding toward a certain goal, with a view to which the lines of direction of all its rules converge in one point. This point is only an idea (*focus imaginarius*)—that is, a point from which the concepts of the understanding do not actually proceed, since it lies wholly outside the boundaries of possible experience. Nonetheless it serves to give them the greatest unity together with the greatest extension.[1] Now from this there arises for us, to be sure, the delusion that these lines of direction shoot out from an object itself lying outside the field of empirically possible cognition (just as objects

1 *Focus imaginarius*: Latin, "imaginary focus," the optical term for the point behind a mirror from which reflected rays seem to come.

are seen behind the surface of a mirror). But this illusion (which we can nevertheless prevent from deceiving us) is indispensably necessary if, besides the objects before our eyes, we also want to see at the same time those lying far off behind our back—that is, if in our case we want to train the understanding to go beyond every given experience (the part of the whole of possible experience), and hence also toward its greatest possible and most extreme extension.

If we survey the cognitions of our understanding in their whole extent, we find that what reason quite peculiarly contributes to them and seeks to bring about is the *systematic* character of cognition, that is, its interconnection from one principle. This unity of reason always presupposes an idea: namely, that of the form of a whole of cognition, which precedes the determinate cognition of the parts and contains the conditions for determining *a priori* the place of each part and its relation to the others. Accordingly, this idea postulates complete unity of the understanding's cognition, through which that cognition becomes not merely a contingent aggregate but a system interconnected according to necessary laws. Strictly speaking, one cannot say that this idea is a concept of the object; it is a concept of the thoroughgoing unity of these concepts, insofar as that unity serves the understanding as a rule. Such concepts of reason are not drawn from nature; rather, we question nature according to these ideas, and consider our cognition defective so long as it is not adequate to them. It is admitted that *pure earth*, *pure water*, *pure air*, and so on are hardly to be found. Yet the concepts of them are still needed (concepts which, as far as their complete purity is concerned, have their [429] origin only in reason), in order to determine properly the share that each of these natural causes has in the appearance. And so all kinds of matter are traced back to earths (the mere load, as it were), salts and combustible substances (as the force), and finally to water and air as vehicles (machines, as it were, by means of which the former act), in order to explain the chemical effects of kinds of matter on one another according to the idea of a mechanism. For

although people do not actually express themselves this way, such an influence of reason on the classifications of natural scientists is very easy to discover.

If reason is a faculty of deriving the particular from the universal, then either the universal is already *certain in itself* and given, in which case only the *power of judgment* is required for subsumption, and the particular is thereby necessarily determined. This I will call the apodictic use of reason. Or the universal is assumed only *problematically* and is a mere idea. The particular is certain, but the universality of the rule for this consequence is still a problem. In that case several particular cases, all of them certain, are tested against the rule to see whether they flow from it. And if it appears that all the particular cases that can be cited follow from it, one infers the universality of the rule, and from this afterward all cases, even those that are not given in themselves. This I will call the hypothetical use of reason.

The hypothetical use of reason, based on ideas as problematic concepts, is not properly *constitutive*. That is, it is not such that, if one wants to judge with full rigor, the truth of the universal rule assumed as a hypothesis would follow from it. For how is one to know all the possible consequences which, by following from the same assumed principle, would prove its universality? Rather, this use is only regulative: it serves to bring unity into particular cognitions as far as possible, and thereby to *bring* the rule *closer* to universality.

The hypothetical use of reason is therefore directed at the systematic unity of the understanding's cognitions, and this unity is the *touchstone of truth* for the rules. Conversely, systematic unity (as a mere idea) is only a *projected* unity, which must be regarded not as given in itself but only as a problem. It serves, however, to find a principle [430] for the manifold and particular use of the understanding, and thereby to guide this use even over the cases that are not given and to make it coherent.

From this, however, we see only that the systematic unity, or unity of reason, of the understanding's manifold cognition is a

logical principle. Its purpose is to help the understanding onward by means of ideas where it cannot by itself arrive at rules, and at the same time to give the diversity of its rules unanimity under one principle (systematic unanimity), and thereby coherence, as far as this can be done. But suppose we ask whether the constitution of objects, or the nature of the understanding that cognizes them as such, is in itself destined for systematic unity; and whether one could postulate this unity *a priori* to a certain extent even without regard to such an interest of reason, and so say: all possible cognitions of the understanding (the empirical ones among them) have unity of reason and stand under common principles from which, despite their diversity, they can be derived. That would be a *transcendental* principle of reason, which would make systematic unity necessary not merely subjectively and logically, as method, but objectively.

Let us illustrate this by a case of the use of reason. Among the various kinds of unity according to concepts of the understanding belongs also that of the causality of a substance, which is called force. At first glance the various appearances of one and the same substance show so much heterogeneity that at the outset one must assume almost as many forces in it as there are effects that come forth—as in the human mind there are sensation, consciousness, imagination, memory, wit, the power of discrimination, pleasure, desire, and so on. To begin with, a logical maxim bids us reduce this apparent diversity as far as possible by discovering the hidden identity through comparison, and by checking whether imagination combined with consciousness might not be memory, wit, the power of discrimination, or perhaps even understanding and reason.[2] The idea of a *fundamental force*—though logic does not settle at all whether there is any such thing—is at least the problem of a systematic representation of the multiplicity of forces. The logical principle of reason requires us to bring about this unity as far as possible.

2 Wit (*Witz*): for Kant, the faculty of spotting likenesses between things, as opposed to the power of discrimination, which spots differences.

And the more the appearances of one force and another are found to be identical with each other, the more probable it becomes that they are nothing but different manifestations [431] of one and the same force, which can (comparatively) be called their *fundamental force*. One proceeds in the same way with the rest.

The comparative fundamental forces must in turn be compared with one another, so that by discovering their unanimity one may bring them closer to a single radical, that is, absolute, fundamental force. But this unity of reason is merely hypothetical. One does not assert that such a force must in fact be found, only that one must seek it for the benefit of reason—namely, to establish certain principles for the various rules that experience may supply—and that, where it can be done, one must in this way bring systematic unity into cognition.

It turns out, however, if one attends to the transcendental use of the understanding, that this idea of a fundamental force in general is not merely meant as a problem for hypothetical use, but claims objective reality. Through it the systematic unity of the various forces of a substance is postulated, and an apodictic principle of reason is established. For without our having so much as tried to find the unanimity of the various forces—indeed, even when after all our attempts we fail to discover it—we nevertheless presuppose that such unanimity will be found. And this is so not only, as in the case cited, because of the unity of substance. Even where many forces are found that are homogeneous to a certain degree, as in matter in general, reason presupposes systematic unity of manifold forces: particular laws of nature stand under more general ones, and economy of principles becomes not merely an economical principle of reason but an inner law of nature.

Indeed, it cannot be seen how a logical principle of the unity of reason among rules could hold at all unless a transcendental principle were presupposed, through which such a systematic unity is assumed *a priori* as necessary, as attaching to the objects themselves. For by what right can reason, in its logical use,

demand that we treat the multiplicity of forces that nature gives us to cognize as a merely hidden unity, and derive them, as far as it can, from some fundamental force, if it were free to admit that it is just as possible that all forces are heterogeneous, and that systematic unity in their derivation is not in keeping with nature? For then it would proceed directly contrary to its vocation, [432] by setting itself as its goal an idea that wholly contradicts the arrangement of nature. Nor can one say that reason previously gathered this unity, according to principles of reason, from the contingent constitution of nature. For the law of reason to seek this unity is necessary: without it we would have no reason at all; without reason, no coherent use of the understanding; and, lacking that, no sufficient mark of empirical truth. So with regard to the latter we must presuppose the systematic unity of nature as thoroughly objectively valid and necessary.

HOMOGENEITY, SPECIFICATION AND CONTINUITY

Reason's principles of genera, species and affinity guide inquiry, presupposing a systematic unity in nature itself.

We also find this transcendental presupposition hidden in an admirable way in the principles of philosophers, although they have not always recognized it there or admitted it to themselves. That all the multiplicity of individual things does not exclude identity of *species*; that the various species must be treated only as different determinations of a few *genera*, and these in turn of still higher *families*, and so on; that therefore a certain systematic unity of all possible empirical concepts must be sought, insofar as they can be derived from higher and more general ones—this is a scholastic rule, or logical principle, without which there would be no use of reason. For we can infer from the universal to the particular only insofar as universal properties of things are laid down as the ground, with the particular ones standing under them.

But that such unanimity is also to be found in nature is presupposed by philosophers in the well-known scholastic rule that beginnings (principles) must not be multiplied without necessity (*entia praeter necessitatem non esse multiplicanda* [entities are not to be multiplied beyond necessity]). This says that the nature of things itself offers material for the unity of reason, and that the apparently infinite diversity must not keep us from suspecting behind it a unity of fundamental properties, from which the multiplicity can be derived only through further determination. This unity, although it is a mere idea, has been pursued so eagerly in all ages that people have found more cause to moderate the desire for it than to encourage it.[3] It was already a great deal that chemists could reduce all salts to two main genera, acid and alkaline; they even try to regard this distinction as merely a variety, or a different manifestation, of one and the same basic material. The various kinds of earths (the material of
433 stones and even of metals) have gradually been brought down to three, and finally to two. But not yet satisfied with this, chemists cannot shake off the thought of suspecting behind these varieties a single genus after all—indeed, even a principle common to these and the salts. One might perhaps think that this is merely an economical device of reason for sparing itself as much trouble as possible, and a hypothetical attempt which, if it succeeds, gives probability to the presupposed ground of explanation precisely through this unity. But such a self-interested aim is very easy to distinguish from the idea according to which everyone presupposes that this unity of reason is in keeping with nature itself—and that here reason does not beg but commands, although without being able to determine the boundaries of this unity.

Suppose there were so great a diversity among the appearances offered to us—I will not say in form (for in that they might resemble one another), but in content, that is, in the multiplicity of existing beings—that even the very sharpest human under-

3 The maxim known as Ockham's razor, after the medieval philosopher William of Ockham (c. 1287–1347), though this wording is not his.

standing could not, by comparing one with another, discover the least similarity (a case that can well be thought). Then the logical law of genera would not hold at all. There would not even be any concept of a genus, or any general concept—indeed, not even any understanding, since the understanding has to do solely with such concepts. The logical principle of genera therefore presupposes a transcendental one, if it is to be applied to nature (by which I here mean only objects that are given to us). According to that transcendental principle, homogeneity is necessarily presupposed in the manifold of a possible experience (although we cannot determine its degree *a priori*), because without it no empirical concepts, and hence no experience, would be possible.

Opposed to the logical principle of genera, which postulates identity, stands another: namely, that of *species*. It requires multiplicity and diversity in things, despite their agreement under the same genus, and prescribes to the understanding that it attend to diversity no less than to identity. This principle (of acuity, or of the faculty of discrimination) sharply limits the rashness of the first (that of wit). Here reason shows a twofold interest, the one conflicting with the other: [434] on the one hand, the interest of *extension* (universality) with regard to genera; on the other, that of *content* (determinateness) with regard to the multiplicity of species. For in the first case the understanding thinks a great deal *under* its concepts, but in the second all the more *in them*. This also shows itself in the very different ways of thinking among natural scientists. Some of them (those who are chiefly speculative), as if hostile to heterogeneity, always look toward the unity of the genus. Others (chiefly empirical minds) constantly seek to split nature into so much multiplicity that one would almost have to give up hope of judging its appearances according to general principles.

This latter way of thinking, too, is evidently based on a logical principle, which aims at the systematic completeness of all cognitions. Starting from the genus, I descend to the manifold that may be contained under it, and in this way seek to give the sys-

tem extension—just as in the first case, where I ascend to the genus, I seek to give it simplicity. For from the sphere of the concept that designates a genus, one can no more tell how far its division may go than one can from the space that matter can occupy. Hence every *genus* requires different *species*, and these in turn different *subspecies*. And since no subspecies is to be found that would not itself always have a sphere (an extension as *conceptus communis* [common concept]), reason in its full expansion demands that no species be regarded as in itself the lowest. For since a species is always a concept containing only what is common to different things, it cannot be thoroughly determined, and so cannot be related directly to an individual; consequently it must always contain other concepts, that is, subspecies, under it. This law of specification could be expressed thus: *entium varietates non temere esse minuendas* [the varieties of entities are not to be diminished rashly].

It is easy to see, however, that this logical law, too, would be without sense or application if it did not rest on a transcendental *law of specification*. This law, to be sure, does not demand an actual *infinity* of differences from the things that can become our objects; for the logical principle, which asserts merely the *indeterminacy* of the logical sphere with regard to possible division, gives no occasion for that. But [435] it nevertheless imposes on the understanding the task of seeking subspecies under every species that comes before us, and smaller differences for every difference. For if there were no lower concepts, there would also be no higher ones. Now the understanding cognizes everything only through concepts. Consequently, however far it reaches in division, it never cognizes through mere intuition, but always again through lower concepts. The cognition of appearances in their thoroughgoing determination (which is possible only through the understanding) demands an endlessly continued specification of its concepts, and an advance to ever-remaining differences, from which abstraction was made in the concept of the species, and still more in that of the genus.

Nor can this law of specification be borrowed from experience, for experience can offer no such far-reaching disclosures. Empirical specification soon comes to a halt in distinguishing the manifold if it has not been guided by the transcendental law of specification, which precedes it as a principle of reason—a principle that bids it seek such differences and keep suspecting them even when they do not reveal themselves to the senses. That absorbent earths are of still different kinds (calcareous and muriatic earths) could be discovered only through an anticipatory rule of reason. This rule made it the understanding's task to seek the difference, by presupposing nature to be rich enough for such a difference to be suspected.[4] For we have understanding only on the presupposition of differences in nature, just as much as only on the condition that its objects have homogeneity in themselves. For it is precisely the multiplicity of what can be comprehended under one concept that makes up the use of that concept and the business of the understanding.

Reason thus prepares the understanding's field: 1. by a principle of the *homogeneity* of the manifold under higher genera; 2. by a principle of the *variety* of the homogeneous under lower species; and, to complete the systematic unity, it adds 3. a law of the *affinity* of all concepts, which commands a continuous transition from every species to every other by a gradual increase of difference. We can call them the principles of the *homogeneity*, the *specification*, and the *continuity* of forms. The last arises by uniting the first two, once one has completed the systematic interconnection [436] in the idea, both in ascending to higher genera and in descending to lower species. For then all multiplicities are akin to one another, since they all descend, through every degree of expanded determination, from a single highest genus.

The systematic unity under the three logical principles can be made sensible in the following way. One can regard every concept as a point which, as the standpoint of an observer, has

4 In the chemistry of Kant's day, "absorbent earths" were the alkaline earths; calcareous earth is lime, muriatic earth magnesia.

its horizon, that is, a multitude of things that can be represented and, as it were, surveyed from it. Within this horizon it must be possible to specify a multitude of points to infinity, each of which in turn has its narrower field of view. That is, every species contains subspecies according to the principle of specification, and the logical horizon consists only of smaller horizons (subspecies), not of points that have no extension (individuals). But for different horizons, that is, genera, which are determined from just as many concepts, a common horizon can be thought to be drawn, from which one surveys them all as from a center. This is the higher genus, until finally the highest genus is the universal and true horizon, which is determined from the standpoint of the highest concept and comprises under itself all multiplicity, as genera, species, and subspecies.

The law of homogeneity leads me to this highest standpoint; the law of specification leads me to all the lower ones and their greatest variety. But since in this way there is nothing empty in the whole extent of all possible concepts, and nothing can be found outside it, there arises, from the presupposition of that universal field of view and its thoroughgoing division, the principle: *non datur vacuum formarum* [there is no vacuum of forms]. That is, there are not different original and first genera that are, as it were, isolated and separated from one another (by an empty interval); rather, all the manifold genera are only divisions of a single, highest and universal genus. And from this principle follows its immediate consequence: *datur continuum formarum* [there is a continuum of forms], that is, all differences of species border on one another and allow no transition from one to another by a leap, but only through all the smaller degrees of difference by which one can get from the one to the other. In a word, there are no species or subspecies that are (in the concept of reason) the nearest to each other; rather, intermediate species are always [437] possible, whose difference from the first and the second is smaller than the difference of these two from each other.

The first law thus guards against excess in the multiplicity of different original genera, and recommends homogeneity. The second, by contrast, limits this inclination toward unanimity in turn, and commands that subspecies be distinguished before one turns with one's general concept to individuals. The third unites the two, by prescribing homogeneity even amid the highest multiplicity, through the gradual transition from one species to another. This indicates a kind of affinity among the different branches, insofar as they have all sprung from one stem.

But this logical law of the *continuum specierum (formarum logicarum)* [continuum of species (of logical forms)] presupposes a transcendental one (*lex continui in natura* [the law of continuity in nature]), without which the use of the understanding would only be led astray by that precept, since it might take a path directly opposed to nature. This law must therefore rest on pure transcendental grounds, not empirical ones. For in the latter case it would come later than the systems; but in fact it was what first produced the systematic character of our cognition of nature. Nor are there hidden behind these laws any intentions of putting them to the test as mere experiments—although this interconnection, where it holds, does provide a powerful reason for regarding the hypothetically devised unity as well founded, so that in this respect too they have their use. Rather, one can clearly see that they judge the parsimony of fundamental causes, the multiplicity of effects, and the resulting affinity of the members of nature to be in themselves rational and in keeping with nature. These principles therefore carry their recommendation with them directly, and not merely as devices of method.

It is easy to see, however, that this continuity of forms is a mere idea, for which no congruent object can be pointed out in experience at all. This is so, *not only* because the species in nature are actually divided and must therefore in themselves make up a *quantum discretum* [discrete quantity]—and if the gradual progression in their affinity were continuous, nature

would also have to contain a true infinity of intermediate members lying between any two given species, [438] which is impossible—*but also* because we can make no determinate empirical use of this law whatever. For it indicates not the slightest mark of affinity telling us by what, and how far, we are to seek the sequence of degrees of their difference; it gives nothing more than a general indication that we are to seek it.

If we transpose the principles just cited in their order, so as to arrange them *in accordance with their use in experience*, the principles of systematic *unity* would stand roughly thus: *multiplicity*, *affinity*, and *unity*, each of them, however, taken as an idea in the highest degree of its completeness. Reason presupposes the cognitions of the understanding, which are applied first of all to experience, and seeks their unity according to ideas—a unity that goes much further than experience can reach. The affinity of the manifold under a principle of unity, without prejudice to its diversity, concerns not merely things but far more still the mere properties and forces of things. Hence if, for example, an experience (not yet fully corrected) gives us the course of the planets as circular, and we find differences, we suspect that they lie in whatever can alter the circle, according to a constant law and through all the infinitely many intermediate degrees, into one of these deviating orbits. That is, the motions of the planets that are not circles will approximate the circle's properties more or less closely, and fall into the ellipse. Comets show an even greater diversity in their paths, since (so far as observation reaches) they do not even return in a circuit. But we guess at a parabolic course, which is nevertheless akin to the ellipse and, if the major axis of the ellipse is very greatly extended, cannot be distinguished from it in any of our observations. Thus, guided by those principles, we arrive at unity of the genera of these paths in their shape, and through this further at unity of the cause of all the laws of their motion (gravitation). From there we afterward extend our conquests, and seek to explain all varieties and apparent deviations from those rules from the same principle. Finally we even add more than experience can

ever confirm: following the rules of affinity, we even conceive of hyperbolic comet paths, in which these bodies leave our solar system altogether and, going from sun to sun, [439] unite in their course the more distant parts of a world-system that for us is unbounded, held together by one and the same moving force.

What is remarkable about these principles, and what alone concerns us, is this: they seem to be transcendental. They contain mere ideas for the empirical use of reason to follow—ideas that this use can follow only asymptotically, as it were, that is, merely by approximation, without ever reaching them. And yet, as synthetic propositions *a priori*, they have objective but indeterminate validity, and serve as rules of possible experience. They are also actually used with good success as heuristic principles in working up experience—although no transcendental deduction of them can be brought about, which, as was proved above, is always impossible with regard to ideas.

In the Transcendental Analytic we distinguished, among the principles of the understanding, the *dynamical* ones, as merely regulative principles of *intuition*, from the *mathematical* ones, which are constitutive with regard to intuition. Notwithstanding this, the dynamical laws in question are certainly constitutive with regard to *experience*, since they make possible *a priori* the *concepts* without which there is no experience. Principles of pure reason, by contrast, cannot be constitutive even with regard to empirical *concepts*, because no corresponding schema of sensibility can be given for them, and so they can have no object *in concreto*. Now if I give up such an empirical use of them as constitutive principles, how am I nonetheless to secure for them a regulative use, and with it some objective validity? And what meaning can that use have?

The understanding constitutes an object for reason just as sensibility does for the understanding. To make systematic the unity of all possible empirical actions of the understanding is a business of reason, just as the understanding connects the manifold of appearances through concepts and brings it under empirical laws. But the actions of the understanding without

schemata of sensibility are *indeterminate*. In the same way, the *unity of reason* is also in itself *indeterminate* with regard to the conditions under which, and the degree to which, the understanding is to combine its concepts systematically. But although
[440] no schema can be found in *intuition* for the thoroughgoing systematic unity of all concepts of the understanding, an *analogue* of such a schema can and must be given. This is the idea of the *maximum* of the division and the unification of the understanding's cognition in one principle. For what is greatest and absolutely complete can be thought determinately, since all the restricting conditions that give indeterminate multiplicity are left out. Thus the idea of reason is an analogue of a schema of sensibility—but with this difference: the application of the concepts of the understanding to the schema of reason is not likewise a cognition of the object itself (as is the application of the categories to their sensible schemata), but only a rule or principle of the systematic unity of all use of the understanding. Now every principle that establishes *a priori* for the understanding thoroughgoing unity of its use also holds, though only indirectly, of the object of experience. So the principles of pure reason will also have objective reality with regard to that object—not, however, in order to *determine* something in it, but only to indicate the procedure by which the understanding's empirical and determinate use in experience can become thoroughly consistent with itself, by being brought into coherence with the principle of thoroughgoing unity, and derived from it, *as far as possible*.

MAXIMS OF REASON

Disputes between lovers of unity and lovers of multiplicity reflect two interests of reason, not insight into objects.

I call all subjective principles that are taken not from the constitution of the object but from the interest of reason in regard to a certain possible perfection of the cognition of this object maxims of reason. So there are *maxims* of speculative reason, which

rest solely on its speculative interest, although it may seem that they are objective principles.

When merely regulative principles are regarded as constitutive, they can conflict as objective principles. But if one regards them merely as *maxims*, there is no true conflict, but merely a different interest of reason, which causes the division in ways of thinking. In fact reason has only a single interest, and the conflict of its maxims is only a difference and a mutual limitation of the methods of satisfying this interest.

Thus with *this* reasoner the interest [441] of *multiplicity* (according to the principle of specification) prevails, while with *that* one it is the interest of *unity* (according to the principle of aggregation). Each of them believes he has his judgment from insight into the object, and yet bases it solely on his greater or lesser attachment to one of the two principles. Neither of these rests on objective grounds, but only on the interest of reason, and so they could better be called maxims than principles. When I see insightful men quarreling with one another over the characteristics of human beings, of animals or of plants, indeed even of the bodies of the mineral kingdom—where some, for example, assume particular national characters grounded in descent, or else decided and hereditary differences of families, varieties, and so on, while others insist that nature has in this respect laid down entirely the same predispositions, and that all difference rests only on external contingencies—then I need only consider the constitution of the object to understand that it lies far too deeply hidden for either of them to be able to speak from insight into the nature of the object.[5] It is nothing other than the twofold interest of reason, of which one party takes the one to heart (or else affects to), and the other party the other. Hence it is the difference between the maxims of the multiplicity of nature and of the unity of nature. These maxims can very well be united; but so long as they are taken for objective insights, they occasion not only conflict but also obstacles that

5 "Varieties" renders Kant's *Racen*, his term for hereditary varieties within the one human species.

long hold up the truth, until a means is found to unite the disputed interest and satisfy reason on this point.

The same holds for the assertion or contestation of the much-discussed law of the *continuous ladder* of created beings, set going by Leibniz and admirably refurbished by Bonnet. This law is nothing but an adherence to the principle of affinity, which rests on the interest of reason; for observation and insight into the arrangement of nature could never have supplied it as an objective assertion.[6] The rungs of such a ladder, as experience can show them to us, stand much too far apart; and our supposedly small differences are usually such wide gulfs in nature itself that nothing whatever can be reckoned on such observations as intentions of nature [442] (especially with a great multiplicity of things, where it must always be easy to find certain similarities and approximations). By contrast, the method of seeking order in nature according to such a principle, and the maxim of regarding such order as grounded in a nature in general—though it is undetermined where or how far—is certainly a legitimate and excellent regulative principle of reason. As such, however, it goes much further than experience or observation could ever match. Yet it determines nothing; it only marks out for reason the path toward systematic unity.

THE FINAL AIM OF THE NATURAL DIALECTIC OF HUMAN REASON

The ideas are deduced as regulative principles: we study the world as if it came from a highest intelligence.

The ideas of pure reason can never be dialectical in themselves; it must be merely their misuse that makes a deceptive illusion arise from them. For they are set us as a task by the nature of our reason, and this highest court of appeal for all the rights and claims of our speculation cannot possibly itself contain original

6 Charles Bonnet (1720–1793), Genevan naturalist, who set out the "ladder of beings," an unbroken scale of creatures from the simplest to the highest, in his *Contemplation of Nature* (1764).

delusions and deceptions. Presumably, then, they will have their good and purposive vocation in the natural predisposition of our reason. But the mob of sophistical reasoners, as usual, cries out about absurdities and contradictions, and rails against the government, into whose innermost plans it cannot penetrate —a government to whose beneficent influences it ought even to owe its own preservation, and indeed the culture that enables it to censure and condemn that government.

One cannot make use of an *a priori* concept with any security without having carried out its transcendental deduction. The ideas of pure reason do not, to be sure, admit of a deduction of the kind the categories do. But if they are to have the least objective validity, even if only indeterminate, and are not to represent mere empty thought-entities (*entia rationis ratiocinantis* [beings of sophistical reasoning]), then a deduction of them must certainly be possible, granted that it may depart widely from the one that can be carried out with the categories. This is the completion of the critical business of pure reason, and this we will now undertake.

It makes a great difference whether something is given to my reason as an *object absolutely* or only as an *object in the idea*. In the first case my concepts aim at determining [443] the object; in the second there is really only a schema, to which no object is directly assigned, not even hypothetically. The schema serves only to let us represent other objects to ourselves indirectly, in their systematic unity, by means of their relation to this idea. Thus I say that the concept of a highest intelligence is a mere idea, that is, its objective reality is not supposed to consist in its relating directly to an object (for in that meaning we could not justify its objective validity). Rather, it is only a schema of the concept of a thing in general, ordered according to the conditions of the greatest unity of reason. This schema serves only to preserve the greatest systematic unity in the empirical use of our reason, by deriving the object of experience, as it were, from the imagined object of this idea as its ground or cause. Then we say, for example: the things of the world must be regarded *as if* they had

their existence from a highest intelligence. In this way the idea is really only a heuristic and not an ostensive concept. It indicates not how an object is constituted, but how, under its guidance, we are to *seek* the constitution and connection of the objects of experience in general. Now suppose it can be shown that, although the three kinds of transcendental ideas (*psychological*, *cosmological*, and *theological*) are not directly related to any object corresponding to them or to its *determination*, nevertheless all the rules of the empirical use of reason, on the presupposition of such an *object in the idea*, lead to systematic unity and always extend empirical cognition, and can never run counter to it. Then it is a necessary maxim of reason to proceed according to such ideas. And this is the transcendental deduction of all the ideas of speculative reason—not as *constitutive* principles for extending our cognition to more objects than experience can give, but as *regulative* principles of the systematic unity of the manifold of empirical cognition in general. By means of these ideas, empirical cognition is better cultivated and corrected within its own boundaries than could happen without them, through the mere use of the principles of the understanding.

444 I will make this clearer. Following the ideas just named as principles, we will, *first* (in psychology), connect all the appearances, actions, and receptivity of our mind on the guiding thread of inner experience *as if* the mind were a simple substance that exists persistently, with personal identity (at least in this life), while its states—to which those of the body belong only as external conditions—continually change. *Second* (in cosmology), we must pursue the conditions of both inner and outer natural appearances in an investigation that can never be completed, *as if* it were in itself infinite and without a first or highest member. We do not thereby deny that there are merely intelligible first grounds of these appearances outside all appearances; but we may never bring them into the context of our explanations of nature, because we do not know them at all. Finally, and *third*, we must (with regard to theology) regard everything that may ever belong to the context of possible experience *as if* it

made up an absolute unity—but one that is thoroughly dependent and always still conditioned within the sensible world—and yet at the same time *as if* the sum total of all appearances (the sensible world itself) had a single, supreme and all-sufficient ground outside its scope: namely, a reason that is, as it were, self-subsistent, original and creative. In relation to this reason we direct every empirical use of *our* reason, in its greatest extension, *as if* the objects themselves had sprung from that archetype of all reason. That is: we are not to derive the inner appearances of the soul from a simple thinking substance, but to derive them from one another according to the idea of a simple being. We are not to derive the order of the world and its systematic unity from a supreme intelligence, but to take from the idea of a supremely wise cause the rule by which reason, in connecting causes and effects in the world, may best be used for its own satisfaction.

Now there is nothing at all to prevent us from *assuming* these ideas as objective and hypostatic as well—except the cosmological idea alone, where reason runs into an antinomy when it tries to bring it about (the psychological and theological ideas contain nothing of the kind). For there is no contradiction in them. How then could anyone dispute their objective reality with us, since he knows just as little of their possibility [445] to deny it as we do to affirm it! Nevertheless, in order to assume something, it is not yet enough that there is no positive obstacle against it. We cannot be permitted to introduce thought-entities that surpass all our concepts, though they contradict none, as actual and determinate objects merely on the credit of speculative reason, which is eager to complete its business. So they are not to be assumed in themselves; only their reality as a schema of the regulative principle of the systematic unity of all cognition of nature is to hold. Hence they are to be laid at the basis only as analogues of actual things, not as actual things in themselves. We remove from the object of the idea the conditions that restrict our concept of the understanding—but these are also the only conditions that make it possible for us to have a determin-

ate concept of any thing at all. And now we think a something of which we have no concept at all as to what it is in itself, but which we nevertheless think as standing in a relation to the sum total of appearances that is analogous to the relation appearances have to one another.

Accordingly, when we assume such ideal beings, we do not really extend our cognition beyond the objects of possible experience. We extend only the empirical unity of that experience, through the systematic unity for which the idea gives us the schema—an idea that therefore holds not as a constitutive but merely as a regulative principle. For positing a thing corresponding to the idea—a something, or an actual being—does not mean that we intend to extend our cognition of things with transcendent concepts. This being is laid at the basis only in the idea and not in itself, and hence only to express the systematic unity that is to serve us as the guideline for the empirical use of reason. It settles nothing about what the ground of this unity is, or what the inner property is of such a being, on which, as cause, the unity rests.

Thus the transcendental and only determinate concept of God that merely speculative reason gives us is, in the strictest sense, *deistic*. That is, reason does not even provide the objective validity of such a concept, but only the idea of something on which all empirical reality grounds its highest and necessary unity. We can think this something only on the analogy of an actual substance that is the cause of all things [446] according to laws of reason—if, that is, we undertake to think it as a particular object at all, rather than being content with the mere idea of the regulative principle of reason and setting aside the completion of all conditions of thinking as extravagant for the human understanding. But that would not be consistent with the aim of a complete systematic unity in our cognition, to which reason at least sets no limits.

Hence it comes about that, if I assume a divine being, I have not the least concept either of the inner possibility of its highest perfection or of the necessity of its existence. Yet I can then sat-

isfy all the other questions that concern the contingent, and can give reason the most complete satisfaction with regard to the greatest unity to be sought in its empirical use—though not with regard to this presupposition itself. This proves that it is reason's speculative interest, and not its insight, that entitles it to start from a point lying so far above its sphere, in order to regard its objects from there as a complete whole.

Here a difference in the way of thinking about one and the same presupposition shows itself—a rather subtle difference, but one of great importance in transcendental philosophy. I can have sufficient ground to assume something relatively (*suppositio relativa* [relative supposition]) without being entitled to assume it absolutely (*suppositio absoluta* [absolute supposition]). This distinction applies when we are dealing merely with a regulative principle, whose necessity in itself we do cognize, but not the source of that necessity, and for which we assume a supreme ground merely with the aim of thinking the universality of the principle all the more determinately. This is the case, for example, when I think a being as existing that corresponds to a mere, and indeed transcendental, idea. For then I can never assume the existence of this thing in itself, since no concepts through which I can think any object determinately reach that far, and the conditions of the objective validity of my concepts are excluded by the idea itself. The concepts of reality, of substance, of causality, even that of necessity in existence, have—apart from the use in which they make empirical cognition of an object possible—no meaning at all that would determine any object. They can therefore be used to explain the possibility [447] of things in the sensible world, but not the possibility of a *world-whole itself*, since this ground of explanation would have to lie outside the world and hence could be no object of a possible experience. Now I can nevertheless assume such an incomprehensible being, the object of a mere idea, relative to the sensible world, though not in itself. For suppose the greatest possible empirical use of my reason is based on an idea (that of systematically complete unity, of which I shall soon speak more determ-

inately) that can never in itself be adequately exhibited in experience, even though it is indispensably necessary for bringing empirical unity as close as possible to the highest degree. Then I shall be not only entitled but also compelled to realize this idea, that is, to posit an actual object for it—but only as a something in general, which I do not know at all in itself, and to which, merely as the ground of that systematic unity and in relation to that unity, I give such properties as are analogous to the concepts of the understanding in their empirical use. I shall therefore think, on the analogy of the realities in the world, of substances, of causality and of necessity, a being that possesses all of this in the highest perfection. And since this idea rests merely on my reason, I shall be able to think this being as *self-subsistent reason*, which through ideas of the greatest harmony and unity is the cause of the world-whole. In doing so I leave out all the conditions that restrict the idea, solely in order, under the protection of such an original ground, to make possible systematic unity of the manifold in the world-whole, and by means of it the greatest possible empirical use of reason. I do this by regarding all combinations *as if* they were arrangements of a supreme reason, of which ours is a faint copy. I then think this supreme being through nothing but concepts that really have their application only in the sensible world. But since I have that transcendental presupposition for no other than a relative use—namely, that it is to supply the substratum of the greatest possible unity of experience—I may quite properly think a being that I distinguish from the world through properties that belong solely to the sensible world. For I by no means demand, nor am I entitled to demand, to cognize this object of my idea according to what it may be in itself. For that I have no concepts: even the concepts of reality, substance, causality, indeed even of necessity [448] in existence, lose all meaning and are empty titles for concepts, without any content, if I venture with them beyond the field of the senses. I think to myself only the relation of a being, wholly unknown to me in itself, to the greatest systematic unity of the world-whole, solely in order to make it the schema

of the regulative principle of the greatest possible empirical use of my reason.

If we now cast our eye on the transcendental object of our idea, we see that we cannot presuppose its actuality *in itself* according to the concepts of reality, substance, causality and so on, because these concepts have not the slightest application to something entirely distinct from the sensible world. Thus reason's supposition of a highest being as supreme cause is thought merely relatively, for the sake of the systematic unity of the sensible world, and is a mere something in the idea, of which we have no concept as to what it is *in itself*. This also explains why, in relation to what is given to the senses as existing, we need the idea of an original being that is *necessary* in itself, and yet can never have the least concept of this being and its absolute *necessity*.

We can now set the result of the whole transcendental dialectic clearly before our eyes, and determine precisely the final aim of the ideas of pure reason, which become dialectical only through misunderstanding and carelessness. Pure reason is in fact occupied with nothing but itself, and can have no other business. For what is given to it is not objects for the unity of the concept of experience, but cognitions of the understanding for the unity of the concept of reason, that is, of connection in one principle. The unity of reason is the unity of a system. And this systematic unity serves reason not objectively, as a fundamental principle for extending that unity over objects, but subjectively, as a maxim for extending it over all possible empirical cognition of objects. Nevertheless, the systematic connection that reason can give to the empirical use of the understanding not only furthers its extension but also at the same time confirms its correctness. And the principle of such systematic unity is also objective, but in an indeterminate way (*principium vagum* [a vague principle]). It is not a constitutive principle for determining something with regard to its direct object, but serves as a merely regulative fundamental principle and maxim, to further and consolidate the empirical use of reason [449] into the infinite

(the indeterminate) by opening new paths unknown to the understanding, without ever in the least contradicting the laws of empirical use.

But reason cannot think this systematic unity except by giving its idea an object at the same time—one, however, that cannot be given through any experience, for experience never gives an example of complete systematic unity. Now this being of reason (*ens rationis ratiocinatae* [a being of reason reasoned out]) is indeed a mere idea. It is therefore not assumed absolutely and *in itself* as something actual, but is laid at the basis only problematically (since we cannot reach it through any concepts of the understanding), in order to regard all connection of things in the sensible world *as if* it had its ground in this being of reason. This is done solely with the aim of basing on it the systematic unity that is indispensable to reason, that is in every way conducive to the empirical cognition of the understanding, and that can never hinder it.[7]

One mistakes the meaning of this idea at once if one takes it for the assertion, or even just the presupposition, of an actual thing to which one intended to ascribe the ground of the systematic constitution of the world. Rather, one leaves it entirely unsettled what the ground of that constitution, which eludes our concepts, is like in itself. One merely adopts an idea as the point of view from which alone one can spread that unity which is so essential to reason and so beneficial to the understanding. In a word: this transcendental thing is merely the schema of that regulative principle through which reason, as far as it can, spreads systematic unity over all experience.

7 *Ens rationis ratiocinatae*: a scholastic term for a being of reason with a foundation in things, as opposed to a mere fiction of the reasoning mind (*ens rationis ratiocinantis*).

THE THREE IDEAS AS REGULATIVE SCHEMATA

Soul, world and God each serve to guide inquiry into appearances, not to reveal objects beyond them.

The first object of such an idea is I myself, considered merely as thinking nature (soul). If I want to seek out the properties with which a thinking being exists in itself, I must ask experience; and of all the categories I can apply none to this object except insofar as its schema is given in sensible intuition. But in this way I never arrive at a systematic unity of all the appearances of inner sense. Instead of the concept of experience (of what the soul actually is), then, which cannot take us far, reason takes the concept of the empirical unity of all thinking. By thinking this unity as unconditioned and [450] original, it makes of it a concept of reason (an idea) of a simple substance which, unchangeable in itself (personally identical), stands in community with other actual things outside it—in a word, of a simple self-subsistent intelligence. But in this reason has nothing in view except principles of systematic unity in explaining the appearances of the soul: namely, to regard all determinations as in a single subject, all powers, as far as possible, as derived from a single fundamental power, all change as belonging to the states of one and the same persistent being, and to represent all *appearances* in space as entirely distinct from the actions of *thinking*. That simplicity of substance, and so on, was meant to be only the schema for this regulative principle; it is not presupposed as though it were the actual ground of the properties of the soul. For these properties may also rest on quite different grounds, of which we know nothing at all. Indeed, even through these assumed predicates we could not really cognize the soul as it is in itself, even if we wanted to let them hold of it absolutely, since they make up a mere idea that cannot be represented *in concreto* [in the concrete] at all. From such a psychological idea nothing but advantage can arise, provided only that one takes care not to let it count for more than a mere idea, that is, to let it hold only rel-

atively to the systematic use of reason with regard to the appearances of our soul. For then no empirical laws of bodily appearances, which are of an entirely different kind, get mixed into the explanations of what belongs merely to *inner sense*. No windy hypotheses about the generation, destruction and palingenesis of souls, and so on, are admitted. The consideration of this object of inner sense is thus carried out quite purely, unmixed with heterogeneous properties; and, besides, reason's inquiry is directed to leading the grounds of explanation in this subject back, as far as possible, to a single principle. All this is best achieved—indeed, achieved solely—through such a schema, *as if* it were an actual being. The psychological idea, too, can signify nothing but the schema of a regulative concept.[8] For if I were even to ask whether the soul is not in itself of a spiritual nature, this question would have no sense at all. For through such a concept I take away [451] not merely bodily nature but all nature whatever—that is, all predicates of any possible experience, and hence all the conditions for thinking an object for such a concept. Yet it is these conditions alone that allow us to say that a concept has sense.

The second regulative idea of merely speculative reason is the concept of the world in general. For nature is really the only given object with regard to which reason needs regulative principles. This nature is twofold: either thinking or bodily nature. But to think bodily nature according to its inner possibility, that is, to determine the application of the categories to it, we need no idea, that is, no representation surpassing experience. Nor is any idea possible with regard to it, because there we are guided merely by sensible intuition—unlike the case of the fundamental psychological concept (the I), which contains *a priori* a certain form of thinking, namely its unity. So nothing is left for pure reason but nature in general, and the completeness of the conditions in it according to some principle. The absolute totality of the series of these conditions, in the derivation of their members, is an idea that can indeed never come fully about in

8 Palingenesis: rebirth, the renewed coming into being of a soul after death.

the empirical use of reason, but that still serves as a rule for how we should proceed with regard to it: namely, in explaining given appearances (in going back or ascending), we are to proceed *as if* the series were infinite in itself, that is, *in indefinitum* [indefinitely]. But where reason itself is regarded as a determining cause (in freedom), and so in the case of practical principles, we are to proceed as if we had before us an object not of the senses but of the pure understanding. There the conditions can no longer be posited in the series of appearances but outside it, and the series of states can be regarded *as if* it were begun absolutely (by an intelligible cause). All this proves that the cosmological ideas are nothing but regulative principles, and are far from positing, constitutively as it were, an actual totality of such series. The rest can be looked up in its proper place, under the antinomy of pure reason.

The third idea of pure reason, which contains a merely relative supposition of a being as the sole and all-sufficient cause of all cosmological series, is the concept of reason of *God*. We have not the least ground to assume the object [452] of this idea absolutely (*to suppose it in itself*). For what could move us, or even entitle us, to believe or assert a being of the highest perfection, absolutely necessary by its nature, in itself and from its mere concept—were it not the world, in relation to which alone this supposition can be necessary? And here it becomes clear that the idea of this being, like all speculative ideas, means nothing more than that reason commands us to regard all connection in the world according to principles of a systematic unity, and hence *as if* it had all sprung from a single all-encompassing being as the supreme and all-sufficient cause. From this it is clear that reason can have nothing in view here but its own formal rule in extending its empirical use, and never an extension *beyond all the boundaries of empirical use*. Consequently, no constitutive principle of its use directed at possible experience lies hidden under this idea.

The highest formal unity, which rests solely on concepts of reason, is the *purposive* unity of things; and the *speculative*

interest of reason makes it necessary to regard all order in the world as if it had sprung from the intention of an all-highest reason. Such a principle opens entirely new prospects to our reason as applied to the field of experience: prospects of connecting the things of the world according to teleological laws, and so of arriving at their greatest systematic unity. The presupposition of a supreme intelligence as the sole cause of the world-whole—though, to be sure, merely in the idea—can therefore always benefit reason and yet never harm it. For if, with regard to the shape of the earth (round, but somewhat flattened)[9], of mountains and seas, and so on, we assume in advance nothing but the wise intentions of an author, we [453] can make a host of discoveries along this path. As long as we keep to this presupposition as a merely *regulative* principle, even error cannot harm us. For at most nothing more can follow from it than that, where we expected a teleological connection (*nexus finalis* [connection of ends]), we come upon a merely mechanical or physical one (*nexus effectivus* [connection of efficient causes]). In such a case we merely miss one more unity; we do not spoil the unity of reason in its empirical use. But even this setback cannot touch the law itself in its universal and teleological aim. For although an anatomist can be convicted of error if he refers some limb of an animal body to an end which, it can be clearly shown, does not follow from it, it is nevertheless utterly impossible in any case to *prove* that an arrangement of nature, whatever it may be, has no end whatsoever. Hence physiology (as practiced by physicians) also extends its very limited empirical knowledge of the ends served by the structure of an organic body, through a fundamental principle suggested by pure reason alone, so far that

9 KANT'S NOTE. The advantage created by the earth's spherical shape is well enough known. But few know that its flattening, as a spheroid, alone prevents the protrusions of the continents, or even of smaller mountains perhaps thrown up by earthquakes, from continually shifting the earth's axis, and considerably so within no very long time. This would happen were not the swelling of the earth at the equator so mighty a mountain that the momentum of any other mountain can never noticeably move it out of its position relative to the axis. And yet people unhesitatingly explain this wise arrangement from the equilibrium of the formerly fluid mass of the earth.

one quite boldly assumes—and at the same time with the agreement of all who understand the matter—that everything in an animal has its use and a good purpose. If this presupposition were meant to be constitutive, it would go much further than observation so far can entitle us to. From this it can be seen that it is nothing but a regulative principle of reason, for arriving at the highest systematic unity by means of the idea of the purposive causality of the supreme cause of the world—and *as if* this cause, as the highest intelligence, were the cause of everything according to the wisest intention.

LAZY REASON AND PERVERTED REASON

Taking the ideas constitutively either halts inquiry or reverses it, forcing ends on nature.

But if we depart from this restriction of the idea to a merely regulative use, reason is led astray in many ways. For it then leaves the ground of experience, which must after all bear the markers of its path, and ventures beyond it to the incomprehensible and unsearchable. At that height it necessarily grows dizzy, because from that standpoint it sees itself entirely cut off from every use in agreement with experience.

The first mistake that arises from using the idea of a 454 highest being not merely regulatively but (contrary to the nature of an idea) constitutively is lazy reason (*ignava ratio*)[10]. One can give this name to any fundamental principle that makes one regard one's investigation of nature, wherever it may be, as absolutely complete, so that reason takes its rest as if it had fully accomplished its business. Hence even the psychological idea,

10 KANT'S NOTE. This was the name the ancient dialecticians gave to a fallacy that ran: If it is your fate to recover from this illness, it will happen whether you use a doctor or not. Cicero says that this kind of inference gets its name from the fact that, if one follows it, no use of reason at all is left in life. This is why I give the same name to the sophistical argument of pure reason.

TRANSLATOR'S NOTE. Marcus Tullius Cicero (106–43 BC), Roman statesman and philosopher; in *On Fate* (28–29) he renders the Greek "lazy argument" (*argos logos*) as *ignava ratio*.

when it is used as a constitutive principle for explaining the appearances of our soul, and then even for extending our cognition of this subject beyond all experience (to its state after death), makes things very convenient for reason, but also entirely spoils and ruins all its natural use under the guidance of experience. Thus the dogmatic spiritualist explains the unity of the person, which persists unchanged through all change of states, from the unity of the thinking substance, which he believes he perceives immediately in the I; he explains the interest we take in things that are to happen only after our death from the consciousness of the immaterial nature of our thinking subject, and so on; and he spares himself all natural investigation of the cause of these inner appearances of ours from physical grounds of explanation. By the decree, as it were, of a transcendent reason, he passes over the immanent sources of cognition in experience for the sake of his own ease, but at the cost of all insight. This harmful consequence is still more evident in the dogmatism of our idea of a highest intelligence and in the theological system of nature (physico-theology) falsely grounded on it. For there all the ends that show themselves in nature—often ends only we ourselves have made so—serve to make things very convenient for us in investigating causes. Instead of seeking the causes in the universal laws of the mechanism of matter, we appeal directly to the unsearchable decree of the highest wisdom, and regard the labor of reason as complete when we dispense with its use. Yet this use finds a guideline nowhere except where [455] the order of nature and the series of alterations according to their inner and universal laws supply it. This mistake can be avoided if we do not consider merely some parts of nature—for example, the distribution of the continents, their structure, and the constitution and location of the mountains, or even merely the organization of the plant and animal kingdoms—from the point of view of ends, but instead make this systematic unity of nature *entirely universal* in relation to the idea of a highest intelligence. For then we lay at the basis a purposiveness according to universal laws of nature, from which no par-

ticular arrangement is exempted, though some are marked out more or less recognizably for us. And we have a regulative principle of the systematic unity of a teleological connection—a connection that we do not, however, determine in advance, but in expectation of which we may only pursue the physical-mechanical connection according to universal laws. For only in this way can the principle of purposive unity always extend the use of reason with regard to experience, without in any case detracting from it.

The second mistake that arises from misinterpreting the principle of systematic unity just mentioned is that of perverted reason (*perversa ratio*, *ὕστερον πρότερον rationis* [a "hysteron proteron" of reason, putting last what should come first]). The idea of systematic unity was meant to serve only as a regulative principle for seeking that unity in the combination of things according to universal laws of nature, and for believing—to the extent that something of it can be found by the empirical route—that one has come that much closer to the completeness of its use, though of course one will never reach it. Instead, one turns the matter around. One begins by laying at the basis, hypostatically, the actuality of a principle of purposive unity; one determines the concept of such a highest intelligence anthropomorphically, since in itself it is wholly unsearchable; and then one forces ends on nature violently and dictatorially, instead of seeking them, as is proper, by the path of physical investigation. The result is not only that teleology, which should serve merely to supplement the unity of nature according to universal laws, now works rather to abolish it, but also that reason defeats its own end, namely to prove from nature, by this principle, the existence of such an intelligent supreme cause. For if one cannot presuppose the highest purposiveness in nature *a priori*, that is, as belonging to its essence, how [456] are we supposed to be directed to seek it, and to approach by its ladder of steps the highest perfection of an author, as a perfection that is absolutely necessary and hence cognizable *a priori*? The regulative principle demands that systematic unity be presupposed absolutely as *unity of*

nature—a unity that is not merely cognized empirically but presupposed *a priori*, though still indeterminately—and hence as following from the essence of things. But if I first lay at the basis a highest ordering being, then the unity of nature is in fact abolished. For it is then entirely foreign and contingent to the nature of things, and cannot be cognized from their universal laws. Hence there arises a vicious circle in proof, since one presupposes what really should have been proved.

To take the regulative principle of the systematic unity of nature for a constitutive one, and to presuppose hypostatically as a cause what is laid only in the idea at the basis of the harmonious use of reason, is simply to confuse reason. The investigation of nature takes its course entirely along the chain of natural causes according to their universal laws. It does so, to be sure, in accordance with the idea of an author—not, however, in order to derive from him the purposiveness it everywhere pursues, but in order to cognize his existence from this purposiveness, which is sought in the essence of natural things and, if possible, in the essence of all things in general, and hence to cognize it as absolutely necessary. Whether this latter succeeds or not, the idea always remains correct, and so does its use, provided this has been restricted to the conditions of a merely regulative principle.

Complete purposive unity is perfection (considered absolutely). If we do not find it in the essence of the things that make up the whole object of experience, that is, of all our objectively valid cognition—and hence in universal and necessary laws of nature—how are we to infer from this directly to the idea of a highest and absolutely necessary perfection of an original being, which is the origin of all causality? The greatest systematic unity, and consequently also purposive unity, is the school and even the foundation of the possibility of the greatest use of human reason. The idea of it is therefore inseparably bound up with the essence of our reason. This same idea is therefore legislative for us, and so it is very natural to assume a corresponding legislative reason (*intellectus archetypus* [archetypal intellect]) [457]

from which all systematic unity of nature, as the object of our reason, is to be derived.

WHAT WE MAY THINK OF A GROUND OF THE WORLD

Kant answers whether a being distinct from the world exists and how far we may think it by analogy.

On the occasion of the antinomy of pure reason we said that all questions raised by pure reason must be absolutely answerable, and that the excuse of the limits of our cognition—as unavoidable as it is fair in many questions about nature—cannot be allowed here. For here the questions are put to us not by the nature of things but solely by the nature of reason, and concern only its inner arrangement. We can now confirm this assertion, bold as it seems at first sight, with regard to the two questions in which pure reason has its greatest interest, and thereby bring our consideration of its dialectic to full completion.

If, then, one asks (with a view to a transcendental theology)[11] *first*, whether there is something distinct from the world that contains the ground of the world's order and of its connection according to universal laws, the answer is: *without doubt*. For the world is a sum of appearances, so there must be some transcendental ground of it, that is, one thinkable merely by the pure understanding. If the question is *second*, whether this being is substance, of the greatest reality, necessary, and so on, I answer *that this question has no meaning at all*. For all the categories through which I try to form a concept of such an object are of no use other than empirical, and have no sense at all if they are not applied to objects of possible experience, that is, to the sensible world. Outside this field they are mere titles for concepts, which one may grant, but through which one can also under-

11 KANT'S NOTE. What I have already said about the psychological idea and its proper vocation as a principle for the merely regulative use of reason spares me the lengthy task of discussing separately the transcendental illusion by which that systematic unity of all the manifold of inner sense is represented hypostatically. The procedure here is very similar to the one the critique follows with regard to the theological ideal.

stand nothing. If, finally, the question is *third*, whether we may not at least think this being distinct from the world according to an *analogy* with the objects of experience, the answer is: *certainly*, but only as an object in the idea and not in reality—namely, only insofar as it [458] is a substratum, unknown to us, of the systematic unity, order and purposiveness of the world's arrangement, which reason must make the regulative principle of its investigation of nature. What is more, we may freely and without reproach allow in this idea certain anthropomorphisms that are conducive to the regulative principle in question. For it is always only an idea, which is related not directly to a being distinct from the world, but to the regulative principle of the systematic unity of the world—though only by means of a schema of that unity, namely a supreme intelligence that is its author according to wise intentions. What this original ground of the unity of the world is in itself was not meant to be thought through this, but rather how we are to use it, or rather its idea, relative to the systematic use of reason with regard to the things of the world.

But in this way (people will go on to ask) *can* we still assume a single, wise and all-powerful author of the world? *Without any doubt*; and not only that, we *must* presuppose one. But then do we not after all extend our cognition beyond the field of possible experience? *By no means*. For we have only presupposed a something of which we have no concept at all as to what it is in itself (a merely transcendental object). But in relation to the systematic and purposive order of the world's structure, which we must presuppose when we study nature, we have thought that being, unknown to us, only *by analogy* with an intelligence (an empirical concept); that is, with regard to the ends and the perfection that are to be grounded on it, we have endowed it with just those properties that, according to the conditions of our reason, can contain the ground of such a systematic unity. This idea is therefore entirely well founded *with respect to the use of our reason in the world*. But if we wanted to give it absolutely objective validity, we would be forgetting that it is merely a being in the idea

that we are thinking. And then, by starting from a ground that cannot be determined at all through consideration of the world, we would be put out of a position to apply this principle in a way suited to the empirical use of reason.

But (people will ask further) can I in this way still make use of the concept and presupposition of a highest being in the rational consideration of the world? Yes, it was really for this that [459] reason laid this idea at the basis. But may I now regard end-like arrangements as intentions, by deriving them from the divine will—though by means of special predispositions set up for that purpose in the world? Yes, you can do that too, but in such a way that it must be all the same to you whether someone says that divine wisdom has ordered everything thus for its supreme ends, or that the idea of highest wisdom is a regulative standard in the investigation of nature and a principle of its systematic and purposive unity according to universal laws of nature, even where we do not perceive that unity. That is, where you do perceive it, it must be a matter of complete indifference to you whether you say: God has wisely willed it so, or: nature has wisely ordered it so. For the greatest systematic and purposive unity, which your reason demanded to lay at the basis of all investigation of nature as a regulative principle, was precisely what entitled you to lay the idea of a highest intelligence at the basis as a schema of the regulative principle. And as much purposiveness as you now find in the world according to that principle, so much confirmation do you have of the legitimacy of your idea; but since the principle in question had no other aim than to seek necessary and greatest possible unity of nature, we shall indeed owe that unity, as far as we attain it, to the idea of a highest being. Yet we cannot, without contradicting ourselves, pass over the universal laws of nature—for whose sake alone the idea was laid at the basis—in order to regard the purposiveness of nature as contingent and hyperphysical in its origin. For we were not entitled to assume a being above nature with the properties in question, but only to lay its idea at the basis, in order to

regard appearances, by analogy with a causal determination, as systematically connected with one another.

For this very reason we are also entitled not only to think the cause of the world in the idea according to a subtler anthropomorphism (without which nothing at all could be thought of it)—namely, as a being that has understanding, pleasure and displeasure, and likewise desire and will in keeping with these, and so on—but also to ascribe to it infinite perfection, which therefore far surpasses anything that empirical knowledge of the order of the world could entitle us to. For the regulative law of systematic unity requires that we study nature *as if* systematic and purposive [460] unity, together with the greatest possible manifoldness, were to be found everywhere, to infinity. For although we shall spy out or attain little of this perfection of the world, it still belongs to the legislation of our reason to seek it and to presume it everywhere; and it must always be advantageous, and can never become harmful, to conduct our consideration of nature according to this principle. But under this representation of the idea of a highest author laid at the basis, it is also clear that what I lay at the basis is not the existence of such a being, nor knowledge of it, but only its idea. So I really derive nothing from this being, but merely from its idea—that is, from the nature of the things of the world, according to such an idea. A certain consciousness, though undeveloped, of the genuine use of this concept of our reason also seems to have prompted the modest and fair language of philosophers of all ages. They speak of the wisdom and providence of nature and of divine wisdom as equivalent expressions; indeed, as long as merely speculative reason is concerned, they prefer the first expression, because it holds back the pretension to a greater assertion than we are entitled to, and at the same time directs reason back to its own proper field, nature.

Thus pure reason, which at first seemed to promise us nothing less than an extension of knowledge beyond all the boundaries of experience, contains, if we understand it rightly, nothing but regulative principles. These principles do command a

greater unity than the empirical use of the understanding can attain; but precisely by pushing the goal of its approach so far out, they bring its agreement with itself, through systematic unity, to the highest degree. If, however, they are misunderstood and taken for constitutive principles of transcendent cognitions, they produce, through a brilliant but deceptive illusion, persuasion and imagined knowledge—and with them, eternal contradictions and disputes.

So all human cognition begins with intuitions, proceeds from there to concepts, and ends with ideas. With regard to all three elements it has sources of cognition *a priori*, which at first sight seem to scorn the boundaries of all experience. Yet a [461] completed critique convinces us that all reason in its speculative use can never, with these elements, get beyond the field of possible experience. It convinces us, too, that the proper vocation of this highest faculty of cognition is to employ all methods and their fundamental principles only in order to trace nature into its innermost depths according to all possible principles of unity—of which the unity of ends is the foremost—but never to fly beyond its boundary, outside which there is nothing *for us* but empty space. It is true that the critical investigation, in the Transcendental Analytic, of all propositions that might extend our cognition beyond actual experience has sufficiently convinced us that they can never lead to anything more than a possible experience. And if we were not distrustful even of the clearest abstract and general doctrines, if charming and plausible prospects did not lure us into throwing off their constraint, we could certainly have spared ourselves the laborious interrogation of all the dialectical witnesses that a transcendent reason calls forward in support of its pretensions. For we already knew in advance, with complete certainty, that all its claims, though perhaps honestly meant, must be absolutely null, because they concerned information that no human being can ever obtain. But the talk never comes to an end unless one gets behind the true cause of the illusion by which even the most rational person can be deceived. And the resolution of all our transcendent

cognition into its elements (as a study of our inner nature) is in itself of no small value, and for the philosopher is even a duty. So it was not only necessary to trace this whole labor of speculative reason, vain as it is, in detail back to its first sources. Since dialectical illusion here is not only deceptive in the judgment but also alluring in the interest one takes in the judgment, and is always natural and will remain so for all time, it was also advisable to draw up in detail, as it were, the records of this lawsuit and to deposit them in the archive of human reason, to prevent future errors of a similar kind.

Doctrine of Method: the Discipline of Pure Reason

Why philosophy cannot proceed like mathematics, and the limits of reason in dispute and hypothesis.

THE TRANSCENDENTAL DOCTRINE OF METHOD

Having surveyed the building materials, Kant turns to the plan: discipline, canon, architectonic and history.

465 If I regard the sum total of all cognition of pure and speculative reason as a building for which we at least have the idea within us, then I can say: in the Transcendental Doctrine of Elements we have estimated the building materials and determined for what building, of what height and strength, they would suffice. It turned out, of course, that although we had in mind a tower that was to reach to heaven, the supply of materials was sufficient only for a dwelling house—one just roomy enough for our business on the plain of experience, and just high enough to survey it. That bold undertaking, however, was bound to fail for lack of material, not even counting the confusion of tongues that would inevitably set the workers at odds over the plan and scatter them across the world, each to build separately according to his own design.[1] Now we are concerned not so much with the materials as with the plan. We have been warned not to risk everything on some arbitrary, blind design that might exceed our entire capacity; yet we cannot well give up erecting a secure dwelling. So we must draw up the plan for a building in propor-

1 An allusion to the Tower of Babel (Genesis 11:1–9).

tion to the supply that has been given to us and that is at the same time adequate to our needs.

By the transcendental doctrine of method, then, I understand the determination of the formal conditions of a complete system of pure reason. With this aim we shall have to deal with a *discipline*, a *canon*, an *architectonic*, and finally a *history* of pure reason. We shall accomplish, with a transcendental aim, what the schools seek under the name of a *practical logic* with regard to the use of the understanding in general, but accomplish badly. [466] For general logic is not restricted to any particular kind of cognition of the understanding (for example, not to pure cognition), nor to certain objects. Without borrowing knowledge from other sciences, therefore, it can do no more than present titles for *possible methods* and the technical expressions used for what is systematic in all sorts of sciences. These acquaint the pupil in advance with names whose meaning and use he is to learn only later.

CHAPTER 1. THE DISCIPLINE OF PURE REASON

Reason, which disciplines everything else, itself needs a negative discipline to curb its speculative excesses.

Negative judgments—those that are negative not merely in their logical form but also in their content—are held in no particular respect by human curiosity. People even regard them as envious enemies of our drive for cognition, which ceaselessly strives to extend itself; and it takes almost an apology merely to win them tolerance, still more to win them favor and esteem.

Logically, of course, we can express any propositions we like negatively. But with regard to the content of our cognition in general—whether a judgment extends it or limits it—negative propositions have the peculiar business of merely *preventing error*. Hence negative propositions meant to prevent a false cognition where no error is ever possible are very true, to be sure, but empty—that is, not at all suited to their purpose—and for that very reason often ridiculous. Such was the proposition of

that school orator: that Alexander could not have conquered any lands without an army.

But where the limits of our possible cognition are very narrow, the temptation to judge great, the illusion that presents itself very deceptive, and the harm from error considerable, there the *negative* part of instruction, which serves merely to guard us against errors, is of even more importance than much positive teaching by which our cognition might be increased. The *constraint* by which the persistent propensity to deviate from certain rules is restricted [467] and finally eradicated is called *discipline*. It is distinguished from *culture*, which is merely meant to provide a *skill* without canceling another one already present. In the formation of a talent that already has an impulse of its own to express itself, discipline will therefore make a negative contribution[2], whereas culture and doctrine make a positive one.

Everyone will readily grant that temperament, and likewise talents that like to allow themselves free and unrestricted movement (such as imagination and wit), need a discipline in some respects. But that reason, whose proper duty it is to prescribe their discipline to all other endeavors, should itself still need one may certainly seem strange. And in fact reason has escaped such a humiliation until now precisely because, given the solemnity and the air of thoroughness with which it appears, no one could easily come to suspect it of frivolously playing with fancies instead of concepts and with words instead of things.

Reason in its empirical use needs no critique, because its principles are subjected to a continuous test on the touchstone of experience. Nor does it need one in mathematics, where its concepts must at once be exhibited *in concreto* in pure intuition, so that anything ungrounded and arbitrary is immediately

2 KANT'S NOTE. I am well aware that in the language of the schools the name *discipline* is commonly used as equivalent to instruction. But against this there are so many other cases in which the first expression, as *training*, is carefully distinguished from the second, as *teaching*—and the nature of things itself demands that the only suitable expressions for this distinction be preserved—that I wish the word never be allowed to be used in any but a negative sense.

exposed. But where neither empirical nor pure intuition keeps reason on a visible track—namely, in its transcendental use according to mere concepts—there it needs a discipline so badly, one that would tame its propensity to extend itself beyond the narrow boundaries of possible experience and keep it from extravagance and error, that the entire philosophy of pure reason is concerned with this negative utility alone. Individual errors can be remedied by *censure*, [468] and their causes by critique. But where, as in pure reason, we encounter an entire system of delusions and deceptions that are well connected with one another and united under common principles, there an entirely special and indeed negative legislation seems to be required. Under the name of a *discipline*, it would erect from the nature of reason and of the objects of its pure use a system, as it were, of caution and self-examination, before which no false, sophistical illusion can stand, but must immediately betray itself, whatever grounds it may offer to gloss itself over.

But it should be carefully noted that in this second main part of the transcendental critique I direct the discipline of pure reason not at the content but merely at the method of cognition from pure reason. The former has already been done in the Doctrine of Elements. The use of reason, however, has so much in common, whatever object it may be applied to, and yet, insofar as it is to be transcendental, is at the same time so essentially different from every other use, that without the warning negative doctrine of a discipline specially designed for it, the errors could not be prevented that must necessarily arise from an inappropriate pursuit of methods that suit reason elsewhere, but not here.

SECTION 1. THE DISCIPLINE OF PURE REASON IN ITS DOGMATIC USE

Mathematics constructs its concepts in intuition; philosophy works only from concepts and cannot imitate its method.

Mathematics gives the most splendid example of pure reason successfully extending itself on its own, without the aid of

experience. Examples are contagious, especially for the same faculty, which naturally flatters itself that it will have in other cases the same good fortune that fell to its lot in one. Hence pure reason hopes to be able to extend itself just as successfully and thoroughly [469] in its transcendental use as it managed to do in its mathematical use, especially if it applies there the same method that has been of such evident utility here. It matters a great deal to us, then, to know whether the method of attaining apodictic certainty that in mathematics is called *mathematical* is the same as the one by which we seek the same certainty in philosophy, and which there would have to be called *dogmatic*.

Philosophical cognition is *rational cognition* from *concepts*; mathematical cognition is rational cognition from the *construction* of concepts. To *construct* a concept, however, means to exhibit *a priori* the intuition corresponding to it. The construction of a concept therefore requires a *non-empirical* intuition. As intuition, it is consequently a *single* object; but as the construction of a concept (a universal representation), it must nonetheless express in the representation universal validity for all possible intuitions that belong under the same concept. Thus I construct a triangle by exhibiting the object corresponding to this concept, either through mere imagination in pure intuition, or, following that, on paper in empirical intuition—but in both cases completely *a priori*, without having borrowed the pattern for it from any experience. The individual figure drawn is empirical, and yet it serves to express the concept without detriment to its universality. For in this empirical intuition we always attend only to the act of constructing the concept, to which many determinations—for example, those of the magnitude of the sides and of the angles—are entirely indifferent; and so we abstract from these differences, which do not alter the concept of the triangle.

Philosophical cognition thus considers the particular only in the universal, mathematical cognition the universal in the particular, indeed even in the individual—yet nonetheless *a priori* and by means of reason. Hence, just as this individual figure is

determined under certain universal conditions of construction, so the object of the concept, to which this individual figure corresponds only as its schema, must be thought as universally determined.

The essential difference between these two kinds of rational cognition thus consists in this form, and does not rest on the difference of their matter or objects. Those who thought they could distinguish philosophy from mathematics by saying that the former has [470] merely *quality* as its object, the latter only *quantity*, have taken the effect for the cause. The form of mathematical cognition is the cause of its being able to deal solely with *quanta*. For only the concept of magnitudes can be constructed, that is, laid out *a priori* in intuition; qualities, by contrast, cannot be exhibited in any but empirical intuition. Hence a rational cognition of them is possible only through concepts.[3] Thus no one can get an intuition corresponding to the concept of reality from anywhere but experience; one can never partake of it *a priori* from oneself, prior to the empirical consciousness of it. We can make the conical shape intuitive without any empirical aid, merely according to the concept; but the color of this cone must first be given in some experience or other. I cannot exhibit the concept of a cause in general in intuition in any way except in an example that experience puts in my hands; and so on. Moreover, philosophy deals with magnitudes just as mathematics does—for example, with totality, infinity, and so on. Mathematics, too, concerns itself with the difference between lines and surfaces as spaces of different quality, and with the continuity of extension as a quality of it. But although in such cases they have a common object, the way reason treats it is entirely different in philosophical and in mathematical consideration. The former keeps merely to universal concepts; the latter can accomplish nothing with the mere concept, but hastens at once to intuition, in which it considers the concept *in concreto*—yet not empirically, but only in an intuition that it has

3 *Quanta*: Latin, "quantities" or "magnitudes" in the sense of particular quantified things.

exhibited *a priori*, that is, constructed, and in which whatever follows from the universal conditions of construction must also hold universally of the object of the concept constructed.

Give a philosopher the concept of a triangle and let him try to find out, in his own way, how the sum of its angles might be related to a right angle. He has nothing but the concept of a figure enclosed by three straight lines, and in it the concept of just as many angles. Now he may reflect on this concept as long as he likes; he will bring out nothing new. He can analyze and clarify the concept of a straight line, or of an angle, or of the number three, but he cannot arrive at other properties [471] that do not lie in these concepts at all. But let the geometer take up this question. He begins at once by constructing a triangle. Since he knows that two right angles together amount to exactly as much as all the adjacent angles that can be drawn from one point on a straight line, he extends one side of his triangle and obtains two adjacent angles that together equal two right ones. Now he divides the exterior one of these angles by drawing a line parallel to the opposite side of the triangle, and sees that an exterior adjacent angle arises here that is equal to an interior one; and so on. In this way, through a chain of inferences, always guided by intuition, he arrives at a solution of the question that is completely evident and at the same time universal.

Mathematics, however, constructs not merely magnitudes (*quanta*), as in geometry, but also mere magnitude (*quantitatem*), as in algebra, where it entirely abstracts from the constitution of the object that is to be thought according to such a concept of magnitude. It then chooses a certain notation for all constructions of magnitudes in general (numbers), such as addition, subtraction, and so on, and extraction of roots. And having also designated the general concept of magnitudes according to their various relations, it exhibits in intuition, according to certain universal rules, every operation by which magnitude is generated and altered. Where one magnitude is to be divided by another, it puts the symbols of both together according to the

notational form of division, and so on;[4] and so, by means of a symbolic construction, it arrives just as well as geometry does by means of an ostensive or geometrical construction (of the objects themselves) at a point that discursive cognition could never reach by means of mere concepts.

What might be the cause of the very different positions in which these two artists of reason find themselves, one of whom takes his way according to concepts, the other according to intuitions that he exhibits *a priori* in accordance with the concepts? From the transcendental doctrines laid out above, this cause is clear. What matters here is not analytic propositions, which can be produced by mere analysis of concepts (here the philosopher would undoubtedly have the advantage over his rival), but synthetic ones—and indeed ones that are to be cognized *a priori*. For I am not to look at what I [472] actually think in my concept of a triangle (this is nothing more than the mere definition); rather, I am to go beyond it to properties that do not lie in this concept but nevertheless belong to it. Now this is possible only if I determine my object according to the conditions either of empirical intuition or of pure intuition. The former would yield only an empirical proposition (by measuring its angles), which would contain no universality, still less necessity; and propositions of that sort are not in question at all. The second procedure, however, is mathematical construction—here, geometrical construction—by means of which I add in a pure intuition, just as in an empirical one, the manifold that belongs to the schema of a triangle in general and hence to its concept. In this way universal synthetic propositions must indeed be constructed.

I would thus philosophize about the triangle in vain—that is, reflect on it discursively—without getting the least bit further than the mere definition, with which, however, I would rightly have had to begin. There is, to be sure, a transcendental synthesis from pure concepts alone, which again succeeds only for the philosopher; but it never concerns more than a thing in gen-

4 *Quantitatem*: Latin, "quantity" as such, in the abstract. Kant's word for algebra is *Buchstabenrechnung*, literally "letter-reckoning."

eral, and the conditions under which its perception could belong to possible experience. In mathematical problems, however, the question is not about this, nor about existence at all, but about the properties of the objects in themselves, solely insofar as these are connected with the concept of them.

In the example cited we have tried only to make clear what a great difference there is between the discursive use of reason according to concepts and its intuitive use through the construction of concepts. Now the question naturally arises what the cause is that makes such a twofold use of reason necessary, and by what conditions one can recognize whether only the first takes place, or the second as well.

All our cognition, after all, ultimately refers to possible intuitions; for through these alone is an object given. Now a concept *a priori* (a non-empirical concept) either already contains a pure intuition within it, in which case it can be constructed; [473] or it contains nothing but the synthesis of possible intuitions that are not given *a priori*. In the latter case we can indeed judge synthetically and *a priori* by means of it, but only discursively, according to concepts, and never intuitively, through the construction of the concept.

Now of all intuition, none is given *a priori* except the mere form of appearances, space and time. A concept of these as *quanta* can be exhibited *a priori* in intuition, that is, constructed, either together with their quality (their shape) or merely as their quantity (the mere synthesis of the homogeneous manifold) through number. But the matter of appearances, through which *things* in space and time are given to us, can be represented only in perception, and hence *a posteriori*. The only concept that represents this empirical content of appearances *a priori* is the concept of a *thing* in general; and synthetic cognition of it *a priori* can supply nothing more than the mere rule of the synthesis of what perception may give *a posteriori*—never the intuition of the real object *a priori*, because this must necessarily be empirical.

Synthetic propositions that concern *things* in general, whose intuition cannot be given *a priori* at all, are transcendental. Accordingly, transcendental propositions can never be given through the construction of concepts, but only according to concepts *a priori*. They contain merely the rule according to which a certain synthetic unity of what cannot be intuitively represented *a priori* (namely, of perceptions) is to be sought empirically. But they cannot exhibit a single one of their concepts *a priori* in any case whatever; they do this only *a posteriori*, by means of experience, which becomes possible only in accordance with those synthetic principles.

If we are to judge synthetically about a concept, we must go beyond this concept—and go, indeed, to the intuition in which it is given. For if we stayed with what is contained in the concept, the judgment would be merely analytic, an explanation of the thought in terms of what is actually contained in it. But I can go from the concept to the pure or empirical intuition corresponding to it, in order to consider it *in concreto* in that intuition and [474] to cognize, *a priori* or *a posteriori*, what belongs to its object. The former is rational and mathematical cognition through the construction of the concept; the latter is merely empirical (mechanical) cognition, which can never yield necessary and apodictic propositions. Thus I could analyze my empirical concept of gold without gaining anything more than being able to list everything I actually think by this word. My cognition would thereby undergo a logical improvement, but acquire no increase or addition. But I take the matter that goes by this name and make observations with it, and these will supply me with various synthetic but empirical propositions. The mathematical concept of a triangle I would construct, that is, give *a priori* in intuition, and in this way obtain a synthetic but rational cognition. But when I am given the transcendental concept of a reality, substance, force, etc., it designates neither an empirical nor a pure intuition, but solely the synthesis of empirical intuitions (which therefore cannot be given *a priori*). And since the synthesis cannot proceed *a priori* beyond it to the intuition corres-

ponding to it, no determining synthetic proposition can arise from it either, but only a principle of the synthesis[5] of possible empirical intuitions. A transcendental proposition is therefore a synthetic rational cognition according to mere concepts, and hence discursive: through it all synthetic unity of empirical cognition first becomes possible, but no intuition is thereby given *a priori*.

So there is a twofold use of reason. Despite the universality of cognition and its generation *a priori*, which they have in common, the two are nonetheless very different in how they proceed. The reason is that in appearance, through which all objects are given [475] to us, there are two elements: the form of intuition (space and time), which can be cognized and determined completely *a priori*; and the matter (the physical), or the content, which signifies a something that is encountered in space and time, and hence contains an existence and corresponds to sensation. With regard to the latter, which can never be given in a determinate way except empirically, we can have nothing *a priori* except indeterminate concepts of the synthesis of possible sensations, insofar as they belong to the unity of apperception (in a possible experience). With regard to the former, we can determine our concepts *a priori* in intuition, since we create the objects themselves in space and time through uniform synthesis, considering them merely as *quanta*. The first is called the use of reason according to concepts, in which we can do nothing more than bring appearances, as to their real content, under concepts, which can be determined in them only empirically, that is, *a posteriori* (though in accordance with those concepts as rules of an empirical synthesis). The second is the use of reason through the construction of con-

5 KANT'S NOTE. By means of the concept of cause I really do go beyond the empirical concept of an event (where something happens)—not, however, to the intuition that exhibits the concept of cause *in concreto*, but to the time-conditions in general that might be found in experience in accordance with the concept of cause. I therefore proceed merely according to concepts, and cannot proceed through the construction of concepts, because the concept is a rule of the synthesis of perceptions, which are not pure intuitions and so cannot be *given a priori*.

cepts, in which these concepts, since they already apply to an intuition *a priori*, can for that very reason be given *a priori*, determinately, in pure intuition, without any empirical *data*. To consider everything that exists (a thing in space or time)—whether and to what extent it is a quantum or not; that an existence or a lack must be represented in it; to what extent this something (which fills space or time) is a first substratum or a mere determination; whether it has a relation of its existence to something else as cause or effect; and finally whether it stands isolated or in mutual dependence on others with regard to existence; to consider the possibility of this existence, its actuality and necessity, or their opposites—all this belongs to *rational cognition* from concepts, which is called *philosophical*. But to determine an intuition *a priori* in space (shape), to divide time (duration), or merely to cognize the universal in the synthesis of one and the same thing in time and space, and the magnitude of an intuition in general that arises from it (number)—that is a *business of reason* through the construction of concepts, and is called *mathematical*.

The great success that reason achieves by means of mathematics quite naturally gives rise to the presumption that, [476] if not mathematics itself, then at least its method will succeed outside the field of magnitudes as well. For mathematics brings all its concepts to intuitions that it can give *a priori*, and by which it becomes, so to speak, master over nature; whereas pure philosophy bungles about in nature with discursive concepts *a priori*, without being able to make their reality intuitive *a priori* and thereby credible. Nor do the masters of this art seem to lack in the least this confidence in themselves, or the public great expectations of their skill, should they ever take this business on. For since they have hardly ever philosophized about their mathematics (a difficult business!), the specific difference between the one use of reason and the other never enters their heads. Current rules used empirically, which they borrow from common reason, then count for them as axioms. Where the concepts of space and time with which they occupy themselves (as

the only original *quanta*) may come from is of no concern to them at all; and in the same way it seems useless to them to investigate the origin of pure concepts of the understanding, and with it the scope of their validity—they merely use them. In all this they do quite right, so long as they do not overstep their assigned boundary, namely that of *nature*. But as it is, they stray unawares from the field of sensibility onto the insecure ground of pure and even transcendental concepts, where the ground (*instabilis tellus, innabilis unda* [unstable land, unswimmable water]) allows them neither to stand nor to swim, and where only fleeting steps can be taken, of which time preserves not the slightest trace. Their progress in mathematics, by contrast, makes a highway that even the most distant posterity can tread with confidence.[6]

We have made it our duty to determine the boundaries of pure reason in its transcendental use precisely and with certainty. But this kind of striving has the peculiarity that, despite the most emphatic and clearest warnings, it still lets itself be strung along by hope before it gives up entirely the scheme of getting beyond the boundaries of experience into the enticing regions of the intellectual. It is therefore necessary to remove, as it were, the last anchor of a fanciful hope, and to show that following the mathematical method in this kind of cognition cannot bring the least advantage—unless it be that of [477] exposing its own weaknesses all the more clearly. It must be shown that geometry and philosophy are two entirely different things, even though they join hands in natural science, and hence that the procedure of the one can never be imitated by the other.

DEFINITIONS, AXIOMS AND DEMONSTRATIONS

Kant shows that none of the three foundations of mathematical certainty is available to philosophy.

The thoroughness of mathematics rests on definitions, axioms, and demonstrations. I shall content myself with showing that

6 Ovid, *Metamorphoses* 1.16, describing primordial chaos.

none of these elements, in the sense in which the mathematician takes them, can be achieved or imitated by philosophy. The geometer following his method would produce nothing in philosophy but houses of cards; the philosopher following his own could produce only idle chatter in the domain of mathematics—though philosophy consists precisely in knowing its boundaries. And even the mathematician, unless his talent happens already to be bounded by nature and restricted to his own field, can neither reject the warnings of philosophy nor set himself above them.

1. On *Definitions*. To *define*, as the expression

itself indicates, should really mean only to exhibit originally the exhaustive concept of a thing within its boundaries[7]. By such a demand an *empirical* concept cannot be defined at all, but only explicated. For since we have in it only a few marks of a certain kind of object of the senses, it is never certain whether, by the word that designates the same object, we do not think more of its marks at one time and fewer at another. Thus in the concept of *gold* one person may think, besides its weight, color, and malleability, the further property that it does not rust, while another may know nothing of this.[8] We make use of certain marks only as long as they are sufficient for making distinctions; new observations, on the other hand, remove some and add others, so the concept never stands within secure boundaries. And what purpose would it serve to define such a concept anyway? When, for example, water and its properties are under discussion, we do not stop at [478] what we think by the word "water," but proceed to experiments; and the word, with the few marks attached to it, is meant to constitute only a *designation* and not a concept of the thing, so that the alleged definition is

7 KANT'S NOTE. *Exhaustiveness* means the clarity and sufficiency of the marks; *boundaries*, the precision that there are no more of them than belong to the exhaustive concept; *originally*, however, that this determination of boundaries is not derived from anywhere else and so does not still need a proof—which would make the supposed explanation unfit to stand at the head of all judgments about an object.

8 "Define" comes from Latin *definire*, "to set boundaries" (*finis*, boundary).

nothing but a determination of the word. Second, strictly speaking, no concept given *a priori* can be defined either—for example, substance, cause, right, equity, etc. For I can never be sure that the distinct representation of a given (still confused) concept has been exhaustively developed unless I know that it is adequate to its object. But since the concept of the object, as it is given, can contain many obscure representations that we pass over in our analysis, although we always use them in applying the concept, the exhaustiveness of the analysis of my concept is always doubtful. It can be made only *probably* certain, never *apodictically* certain, by many fitting examples. Instead of the expression "definition," I would rather use that of *exposition*. This remains cautious, and the critic can accept an exposition up to a certain point while still retaining reservations about its exhaustiveness. Since, then, neither empirical concepts nor concepts given *a priori* can be defined, the only ones left on which one can try this feat are arbitrarily thought ones. In such a case I can always define my concept; for I must know what I wanted to think, since I made the concept up deliberately myself, and it was given to me neither through the nature of the understanding nor through experience. But I cannot say that I have thereby defined a true object. For if the concept rests on empirical conditions—for example, a ship's clock—then the object and its possibility are not yet given by this arbitrary concept. From it I do not even know whether it has an object at all, and my explanation could better be called a declaration (of my project) than a definition of an object. So the only concepts left that are fit for defining are those that contain an arbitrary synthesis that can be constructed *a priori*; hence only mathematics has definitions. For the object that it thinks it also exhibits *a priori* in intuition, and this object can certainly contain neither more nor less than the concept, since the concept of the object was given originally through the explanation—that is, without deriving the explanation from anything else. The German [479] language has for the expressions *exposition*, *explication*, *declaration*, and *definition* nothing but the one word *Erklärung* [explanation]. We must

therefore relax somewhat the strictness of the demand by which we refused philosophical explanations the honorary title of definition. Let us restrict this whole remark to the following: philosophical definitions come about only as expositions of given concepts, mathematical ones as constructions of concepts originally made; the former only analytically, through analysis (whose completeness is not apodictically certain), the latter synthetically. Mathematical definitions therefore *make* the concept itself, whereas philosophical ones only *explain* it. From this it follows:

a) that in philosophy one must not imitate mathematics by putting the definitions first, except perhaps as a mere experiment. For since they are analyses of given concepts, these concepts, though still only confused, come first, and the incomplete exposition precedes the complete one. So we can infer a good deal in advance from a few marks drawn from a still unfinished analysis before we have arrived at the complete exposition, that is, at the definition. In a word, in philosophy the definition, as distinctness made precise, must conclude the work rather than begin it[9]. In mathematics, on the other hand, we have no concept at all prior to the definition, since it is through the definition that the concept is first given; it must, and always can, begin with it.

b) Mathematical definitions can never be in error. For since [480] the concept is first given through the definition, it contains exactly what the definition means to be thought through it. But

9 KANT'S NOTE. Philosophy teems with faulty definitions, especially ones that really do contain elements of a definition, but not yet completely. If we could do nothing at all with a concept until we had defined it, all philosophizing would be in a very bad way. But since a good and secure use can always be made of the elements (of the analysis) as far as they reach, even deficient definitions—that is, propositions that are not yet really definitions but are otherwise true and thus approximations to them—can be used very profitably. In mathematics the definition belongs *ad esse* [to being]; in philosophy, *ad melius esse* [to being better]. It is fine to arrive at it, but often very difficult. The jurists are still looking for a definition of their concept of right.

TRANSLATOR'S NOTE. Scholastic formulas: in mathematics a definition is essential to the thing itself; in philosophy it is a desirable improvement.

although nothing incorrect can occur in its content, there can sometimes, though only rarely, be a fault in the form (the wording)—namely, with regard to precision. Thus the common explanation of the circle, that it is a *curved* line all of whose points are equidistant from a single point (the center), has the fault that the determination *curved* has crept in unnecessarily. For there must be a particular theorem, derived from the definition and easily proved, that every line all of whose points are equidistant from a single point is curved (no part of it straight). Analytic definitions, on the other hand, can be in error in many ways: either by bringing in marks that did not actually lie in the concept, or by lacking the exhaustiveness that constitutes the essence of a definition, since one cannot be so completely certain of the completeness of one's analysis. For this reason the mathematical method of defining cannot be imitated in philosophy.

2. On *Axioms*. These are synthetic principles *a priori*, insofar as they are immediately certain. Now one concept cannot be combined with another synthetically and yet immediately, because in order to go beyond a concept we need a third, mediating cognition. Since philosophy is merely rational cognition according to concepts, no principle will be found in it that deserves the name of an axiom. Mathematics, on the other hand, is capable of axioms, because by means of the construction of concepts in the intuition of the object it can connect the predicates of that object *a priori* and immediately—for example, that three points always lie in a plane. A synthetic principle from concepts alone, by contrast, can never be immediately certain—for example, the proposition: everything that happens has its cause. For here I must look around for a third thing, namely the condition of time-determination in an experience, and could not cognize such a principle directly and immediately from the concepts alone. Discursive principles are therefore something entirely different from intuitive ones, that is, axioms. The former always still require a deduction, which the latter can do without entirely. And since axioms are, for this very reason,

evident [481] —which philosophical principles, for all their certainty, can never claim to be—it is infinitely far from being the case that any synthetic proposition of pure and transcendental reason is as self-evident (as people are defiantly wont to put it) as the proposition *that two times two makes four*. In the Analytic, to be sure, in the table of principles of the pure understanding, I also mentioned certain axioms of intuition. But the principle cited there was itself not an axiom; it served only to state the principle of the possibility of axioms in general, and is itself only a principle from concepts. For even the possibility of mathematics must be shown in transcendental philosophy. Philosophy thus has no axioms, and may never command its principles *a priori* so unconditionally; it must instead resign itself to justifying its title to them by a thorough deduction.

3. On *Demonstrations*. Only an apodictic proof, insofar as it is intuitive, can be called a demonstration. Experience teaches us what exists, but not that it could not be otherwise at all. Hence empirical grounds of proof cannot provide an apodictic proof. But from concepts *a priori* (in discursive cognition) intuitive certainty, that is, evidence, can never arise, however apodictically certain the judgment may otherwise be. Only mathematics, therefore, contains demonstrations, because it derives its cognition not from concepts but from their construction, that is, from the intuition that can be given *a priori* corresponding to the concepts. Even the procedure of algebra with its equations, from which it brings forth the truth together with the proof by reduction, is indeed not a geometrical construction, but it is still a characteristic construction. In it one lays out the concepts in intuition by means of signs, especially concepts of the relation of magnitudes; and, without even regarding the heuristic aspect, it secures all inferences against error by placing each of them before our eyes. Philosophical cognition, by contrast, must do without this advantage, since it must always consider the universal *in abstracto* (through concepts), whereas mathematics can consider the universal *in concreto* (in the individual intuition) and yet through pure representation *a priori*,

where every false step becomes visible.[10] I would therefore rather call the former *acroamatic* (discursive) *proofs*, since they can be conducted only through words alone (the object in thought), than *demonstrations*, [482] which, as the term itself indicates, proceed in the intuition of the object.[11]

From all this it follows that it does not suit the nature of philosophy, especially in the field of pure reason, to strut about with a dogmatic gait and deck itself out with the titles and ribbons of mathematics. Philosophy does not belong to that order, though it has every reason to hope for a sisterly union with it. Such pretensions are vain and can never succeed; indeed, they must defeat philosophy's own purpose, which is to uncover the deceptions of a reason that mistakes its boundaries and, by sufficiently clarifying our concepts, to bring the self-conceit of speculation back to modest but thorough self-knowledge. Reason, therefore, will not be able to look ahead so confidently in its transcendental endeavors, as if the path it has traveled led quite straight to the goal. Nor will it be able to count so boldly on the premises it has laid at the foundation that there would be no need to look back often and take heed whether errors may be discovered in the course of its inferences—errors that were overlooked in the principles and that make it necessary either to determine those principles more precisely or to alter them entirely.

I divide all apodictic propositions (whether provable or immediately certain) into *dogmata* and *mathemata*. A directly synthetic proposition from concepts is a *dogma*; such a proposition through the construction of concepts, on the other hand, is a *mathema*. Analytic judgments really teach us nothing more about the object than what the concept we have of it already contains, since they do not extend cognition beyond the concept of the subject but only elucidate that concept. They cannot,

10 "Characteristic" in the sense of working with written characters or signs (as in Leibniz's *characteristica universalis*).

11 "Acroamatic," from the Greek for "listening": proof carried on in words addressed to the ear, as opposed to what is shown to the eye.

therefore, properly be called dogmas (a word one might perhaps translate as *doctrinal sayings*).[12] But of the two kinds of synthetic propositions *a priori* just mentioned, only those belonging to philosophical cognition can bear this name in ordinary usage; one would hardly call the propositions of arithmetic or geometry dogmata. This usage thus confirms the explanation we gave: that only judgments from concepts, not those from the construction of concepts, can be called dogmatic.

Now pure reason, in its merely speculative [483] use, contains not a single directly synthetic judgment from concepts. For through ideas, as we have shown, it is incapable of any synthetic judgments that would have objective validity. Through concepts of the understanding it does indeed establish secure principles—yet not directly from concepts at all, but always only indirectly, through the relation of these concepts to something wholly contingent, namely *possible experience*. When this (something as an object of possible experiences) is presupposed, these principles are indeed apodictically certain; but in themselves (directly) they cannot even be cognized *a priori* at all. Thus no one can gain thorough insight into the proposition "everything that happens has its cause" from these given concepts alone. Hence it is not a dogma, although from another standpoint—namely, that of the sole field of its possible use, that is, experience—it can be proved perfectly well and apodictically. But although it must be proved, it is called a *principle* and not a *theorem*, because it has the special property that it first makes possible its own ground of proof, namely experience, and must always be presupposed in experience.

Now if in the speculative use of pure reason there are no dogmata at all, even as to content, then every *dogmatic* method—whether borrowed from the mathematician or meant to become a manner of its own—is in itself unsuitable. For it only conceals mistakes and errors and deceives philosophy, whose real aim is to let every step of reason be seen in the clearest light. Neverthe-

12 Greek terms: *dogma* (tenet, what seems so) and *mathema* (what is learned, the root of "mathematics").

less, the method can always be *systematic*. For our reason is (subjectively) itself a system; but in its pure use, by means of mere concepts, it is only a system of inquiry according to principles of unity, for which *experience* alone can supply the material. About the method peculiar to a transcendental philosophy, however, nothing can be said here, since we are concerned only with a critique of our resources: whether we can build at all, and how high we might raise our edifice out of the material we have (pure concepts *a priori*).

SECTION 2. THE DISCIPLINE OF PURE REASON IN ITS POLEMICAL USE

Reason must allow free critique; neither side can prove its dogmatic assertions about God or the soul.

[484] Reason must submit to critique in all its undertakings, and cannot restrict the freedom of critique by any prohibition without harming itself and drawing upon itself a damaging suspicion. Nothing is so important in its usefulness, nothing so sacred, that it may exempt itself from this searching and scrutinizing examination, which is no respecter of persons. On this freedom rests the very existence of reason. Reason has no dictatorial authority; its verdict is never anything but the agreement of free citizens, each of whom must be able to voice his reservations, and even his *veto*, without holding back.

But although reason can never *refuse* critique, it does not always have cause to *fear* it. Pure reason in its dogmatic (not mathematical) use, however, is not so conscious of the most exact observance of its supreme laws that it need not appear with diffidence—indeed, with every assumed dogmatic authority laid aside—before the critical eye of a higher reason that sits in judgment.

It is quite otherwise when reason has to deal not with the censure of the judge but with the claims of its fellow citizen, and merely has to defend itself against them. For since these claims mean to be just as dogmatic in denying as reason's own are in affirming, a justification *κατ' ἄνθρωπον* [with regard to the per-

son] takes place. This secures reason against every encroachment and gives it a possession by title that need fear no outside pretensions, even though that possession cannot itself be sufficiently proved *κατ' ἀλήθειαν* [with regard to the truth].[13]

By the polemical use of pure reason I mean the defense of its propositions against the dogmatic denials of them. What matters here is not whether its assertions might not perhaps also be false, but only that no one can ever assert the opposite with apodictic certainty (or even with greater plausibility). For we do not hold our possession merely on sufferance [485] if we have a title to it, even an insufficient one, and it is completely certain that no one can ever prove this possession unlawful.

It is something distressing and disheartening that there should be an antithetic of pure reason at all, and that reason, which after all represents the supreme court of justice over all disputes, should fall into dispute with itself. We did, it is true, have such an apparent antithetic of reason before us earlier; but it turned out to rest on a misunderstanding. In keeping with common prejudice, appearances were taken for things in themselves, and then an absolute completeness of their synthesis was demanded in one way or the other (though it was equally impossible either way)—something that cannot be expected of appearances at all. So there was then no real *contradiction of reason* with itself in the propositions "the series of appearances *given in themselves* has an absolutely first beginning" and "this series is absolutely and *in itself* without any beginning." For both propositions are quite consistent with each other, since *appearances*, as regards their existence (as appearances), are *in themselves* nothing at all, that is, something self-contradictory; and so presupposing them in that way must naturally draw contradictory consequences after it.

Such a misunderstanding cannot, however, be pleaded, and the dispute of reason settled by it, if, say, it were asserted theistically that *there is a supreme being*, and atheistically, on the other

13 Greek logical terms: an argument *kat' anthrōpon* is valid against a particular opponent on his own premises; one *kat' alētheian* is valid absolutely.

side, that *there is no supreme being*; or if in psychology it were asserted that everything that thinks has absolute, persistent unity and is therefore distinct from all perishable material unity, and someone else opposed to this the claim that the soul is not an immaterial unity and cannot be exempted from perishability. For here the object of the question is free of anything foreign to it that contradicts its nature, and the understanding is dealing only with *things in themselves*, not with appearances. Here, then, a true conflict would indeed be found—if only pure reason had something to say on the negative side that came close to grounding an assertion. As for the criticism of the grounds of proof offered by the dogmatic affirmer, that can very well be conceded to him without giving up these propositions on that account; for they at least [486] have the interest of reason on their side, to which the opponent cannot appeal at all.

I do not, indeed, share the opinion so often voiced by excellent and thoughtful men (for example, Sulzer), when they felt the weakness of the proofs offered hitherto: that one may hope someday still to discover evident demonstrations of the two cardinal propositions of our pure reason, "there is a God" and "there is a future life." On the contrary, I am certain that this will never happen. For where will reason get the ground for such synthetic assertions, which do not relate to objects of experience and their inner possibility? But it is also apodictically certain that no human being will ever come forward who could assert the *opposite* with the least plausibility, let alone dogmatically.[14] For since he could establish this only through pure reason, he would have to undertake to prove that a supreme being, or that the subject thinking within us as pure intelligence, is *impossible*. But where will he get the knowledge that would entitle him to judge so synthetically about things beyond all possible experience? We can therefore be quite untroubled that anyone will someday prove the opposite to us. So we have no need to devise proofs in proper scholastic form; we may

14 Johann Georg Sulzer (1720–1779), Swiss-born philosopher and aesthetician of the Berlin Academy.

always accept those propositions that cohere perfectly well with the speculative interest of our reason in its empirical use, and that are, moreover, the only means of uniting that interest with the practical interest. Against the opponent (who must here be regarded not merely as a critic) we have our *non liquet* ready, which cannot fail to confound him. Meanwhile we do not refuse to have it turned back upon us, since we always hold in reserve the subjective maxim of reason, which the opponent necessarily lacks; under its protection we can look on at all his blows at the empty air with calm and indifference.[15]

In this way there is, properly speaking, no antithetic of pure reason at all. For its only battleground would have to be sought in the field of pure theology and psychology; but this ground bears no combatant in full armor and with weapons to be feared. He can appear only with mockery or bragging, which can be laughed off as child's play. This is a consoling remark that gives reason fresh courage. For what else could it [487] rely on if it —which alone is called upon to clear away all errors—were divided against itself, with no hope of peace and quiet possession?

Everything that nature itself arranges is good for some purpose. Even poisons serve to overcome other poisons generated in our own bodily fluids, and so must not be missing from a complete collection of remedies (a pharmacy). The objections against the persuasions and self-conceit of our merely speculative reason are themselves set as a task by the nature of this reason, and so must have their good vocation and purpose, which ought not to be thrown to the winds. Why has providence placed many objects so high—though they are bound up with our highest interest—that we are granted little more than to meet with them in an indistinct perception, one we ourselves doubt, so that our searching glances are more provoked than satisfied? Whether it is useful to venture bold determinations with regard to such prospects is at least doubtful; it may even be

15 Latin, "it is not clear": the Roman judge's formula for a case left undecided for want of proof.

harmful. But it is always, and beyond all doubt, useful to set reason, both inquiring and examining, in complete freedom, so that it can attend to its own interest unhindered. That interest is advanced just as much by reason's setting limits to its insights as by its extending them, and it always suffers when outside hands interfere to steer reason, against its natural course, toward forced ends.

So just let your opponent show reason, and fight him only with the weapons of reason. For the rest, have no worry about the good cause (practical interest), for it never comes into play in a merely speculative dispute. The dispute then reveals nothing but a certain antinomy of reason, which, since it rests on reason's nature, must necessarily be heard and examined. The dispute cultivates reason by considering its object from two sides, and corrects its judgment by limiting it. What is in dispute here is not the *substance* but the *tone*. For you still have enough left to speak the language of a firm *belief*, justified before the most rigorous reason, even though you have had to give up that of *knowledge*.

[488] Suppose one were to ask the cool-headed *David Hume*, a man really made for equilibrium of judgment: what moved you, with laboriously brooded-over doubts, to undermine the persuasion—so comforting and useful for human beings—that their rational insight suffices to assert, and to form a determinate concept of, a supreme being? He would answer: nothing but the aim of bringing reason further in its self-knowledge, together with a certain indignation at the constraint people want to impose on reason, by making much of it while at the same time preventing it from frankly confessing the weaknesses that become evident to it when it examines itself. Ask, on the other hand, *Priestley*—devoted solely to the principles of the *empirical* use of reason and averse to all transcendent speculation—what motives he had for tearing down the freedom and immortality of our soul (for him the hope of a future life is only the expectation of a miracle of resurrection), two such pillars of all religion, he who is himself a pious and zealous teacher of religion. He

could answer nothing but this: the interest of reason, which loses when one tries to withdraw certain objects from the laws of material nature, the only laws we can know and determine precisely.[16] It would seem unfair to decry the latter, who knows how to reconcile his paradoxical assertion with the aims of religion, and to wound a well-meaning man because he cannot find his bearings once he has strayed from the field of natural science. But the same indulgence must equally be granted to *Hume*, no less well-intentioned and blameless in his moral character, who cannot abandon his abstract speculation because he rightly holds that its object lies entirely outside the boundaries of natural science, in the field of pure ideas.

What, then, is to be done here, especially in view of the danger that seems to threaten the common good from this quarter? Nothing is more natural, nothing fairer, than the decision you have to make about it. Just let these people get on with it. If they show talent, if they show depth and new inquiry —in a word, if they only show reason—then reason always gains. If you seize on means other than those of a reason free of coercion, if you cry high treason and summon the general public, which has no understanding of such subtle labors, [489] as if to put out a fire, you make yourselves ridiculous. For the question is not at all what is advantageous or harmful to the common good in this matter, but only how far reason can get in its speculation, which abstracts from all interest, and whether one can count on that speculation at all, or must rather give it up altogether in favor of the practical. So instead of lashing out with the sword, watch this dispute calmly from the safe seat of critique. It must prove laborious for the combatants, entertaining for you, and—its outcome being sure to be bloodless—profitable for your insight. For it is quite absurd to expect enlightenment from reason and yet prescribe to it in advance which side it must necessarily come down on. Besides, reason is already so well restrained and held within limits by reason itself that you have

16 Joseph Priestley (1733–1804), English chemist and Dissenting minister who defended materialism and determinism as compatible with Christianity.

no need to call out the watch to put up civil resistance against whichever party's alarming ascendancy seems dangerous to you. In this dialectic there is no victory that would give you cause for concern.

Reason, moreover, has great need of such a dispute, and it is to be wished that it had been conducted sooner and with unrestricted public permission. For then a mature critique would have come about all the sooner, and at its appearance all these quarrels must fall away of themselves, as the disputants learn to see the blindness and prejudices that divided them.

There is a certain dishonesty in human nature which, like everything that comes from nature, must in the end contain a predisposition to good ends: namely, an inclination to conceal one's true dispositions and to display certain assumed ones that are held to be good and creditable. Quite certainly, through this propensity both to conceal themselves and to put on a semblance advantageous to them, human beings have not merely *civilized* themselves but have gradually, to a certain degree, *moralized* themselves. For no one could see through the paint of propriety, respectability and decency, and so each found, in the supposedly genuine examples of goodness he saw around him, a school of improvement for himself. But this predisposition to present oneself as better than one is, and to express dispositions one does not have, serves only *provisionally*, as it were, to bring human beings out of crudeness and to let them [490] first adopt at least the *manner* of the good they know. For afterward, once genuine principles have been developed and have passed into the way of thinking, that falseness must gradually be vigorously combated, since otherwise it corrupts the heart and does not let good dispositions grow up beneath the rank weeds of fair seeming.

I regret to observe the same dishonesty, dissimulation and hypocrisy even in the expressions of the speculative way of thinking, where people have far fewer obstacles, and no advantage at all, in making the confession of their thoughts openly and without concealment, as is only fair. For what can be more

harmful to insight than to communicate even mere thoughts to one another in falsified form, to conceal doubts we feel against our own assertions, or to give a coat of evidence to grounds of proof that do not satisfy even ourselves? So long, however, as merely private vanity instigates these secret intrigues (which is generally the case with speculative judgments that involve no particular interest and are not easily capable of apodictic certainty), the vanity of others resists it *with public approval*, and in the end matters arrive where the purest disposition and sincerity would have brought them, though much sooner. But where the public holds that hair-splitting sophists are engaged in nothing less than shaking the foundations of public welfare, there it seems not only prudent but permissible, and even commendable, to come to the aid of the good cause with specious arguments, rather than leave its supposed opponents even the advantage of making us lower our tone to the moderation of a merely practical conviction and forcing us to admit the lack of speculative and apodictic certainty. Yet I should think that nothing in the world could be combined less well with the aim of upholding a good cause than cunning, dissimulation and fraud. That everything should proceed honestly in weighing the rational grounds of a mere speculation is surely the least one can demand. But if one could count securely on even this little, then the dispute of speculative reason over the important questions of God, immortality (of the soul) and freedom would either have been decided long ago or [491] would very soon be brought to an end. Thus the purity of disposition often stands in inverse proportion to the goodness of the cause itself, and the cause perhaps has more sincere and upright opponents than defenders.

I therefore presuppose readers who do not want to see any just cause defended unjustly. For them it is now settled that, according to our principles of critique—if one looks not at what happens but at what in fairness ought to happen—there should properly be no polemic of pure reason at all. For how can two persons carry on a dispute about a thing whose reality neither of them can exhibit in an actual, or even in a possible, experi-

ence—a thing over whose mere idea each broods, in order to extract from it something *more* than an idea, namely the actuality of the object itself? By what means will they get out of the dispute, since neither of them can make his own case directly comprehensible and certain, but can only attack and refute that of his opponent? For this is the fate of all assertions of pure reason. They go beyond the conditions of all possible experience, outside which no documentary evidence of truth is to be found anywhere; and yet they must make use of the laws of the understanding, which are meant only for empirical use, but without which no step can be taken in synthetic thinking. So they always leave themselves exposed to the opponent, and each can take advantage of the other's exposure.

CRITIQUE AS THE COURT OF JUSTICE

Without critique reason is in a state of nature; critique brings the peace of a lawful condition.

The critique of pure reason can be regarded as the true court of justice for all its disputes. For it is not itself involved in these disputes, which are directed at objects immediately, but is instituted to determine and judge the rights of reason in general according to the principles of its first institution.

Without it, reason is, as it were, in the state of nature, and can assert or secure its claims and pretensions only through *war*. Critique, by contrast, which takes all its decisions from the ground rules of its own constitution, whose authority no one can doubt, secures for us the peace of a lawful condition, in which we are to conduct our disputes only by *legal process*. What ends the quarrels in the first condition is a *victory* of which both sides boast, and which is usually followed by a merely insecure peace, arranged by an authority that steps in between; [492] in the second condition it is the *verdict*, which, because it here strikes at the source of the disputes itself, must secure a perpetual peace. The endless disputes of a merely dogmatic reason also compel us, in the end, to seek peace in some critique of this

reason itself and in a legislation grounded on it. Thus Hobbes maintains that the state of nature is a state of injustice and violence, and that one must necessarily leave it in order to submit to lawful coercion, which alone limits our freedom so that it can coexist with everyone else's freedom and thereby with the common good.[17]

To this freedom there also belongs the freedom to put forward one's thoughts, and the doubts one cannot resolve oneself, for public judgment, without being decried on that account as a restless and dangerous citizen. This already lies in the original right of human reason, which recognizes no other judge than, once again, universal human reason itself, in which everyone has his voice; and since all the improvement of which our condition is capable must come from this, such a right is sacred and must not be curtailed. It is also very unwise to cry out as dangerous certain daring assertions, or presumptuous attacks on views that already have on their side the assent of the largest and best part of the public; for that is to give them an importance they ought not to have at all. When I hear that an uncommon mind is supposed to have demonstrated away the freedom of the human will, the hope of a future life and the existence of God, I am eager to read the book, for I expect his talent to advance my insight. I already know in advance, with complete certainty, that he will have accomplished none of this. This is not because I believe myself already in possession of irrefutable proofs of these important propositions, but because transcendental critique, which laid open to me the whole stock of our pure reason, has fully convinced me of this: just as reason is wholly inadequate for affirmative assertions in this field, so it will know just as little, and even less, to be able to assert anything negatively about these questions. For where will the supposed freethinker get his knowledge that there is, for example, no supreme being? This proposition lies outside the field of possible experience, and therefore also outside the boundaries of all human insight. I

17 Thomas Hobbes (1588–1679), English political philosopher, who argues in *De Cive* (1642) and *Leviathan* (1651) that the state of nature is a war of all against all.

would not read the dogmatic [493] defender of the good cause against this enemy at all, because I know in advance that he will attack the other's specious arguments only in order to gain entry for his own; besides, an everyday illusion does not give as much material for new observations as a strange and ingeniously devised one. The opponent of religion, on the other hand—dogmatic in his own way too—would give my critique welcome occupation and occasion for further correcting its principles, without there being the least thing to fear on his account.

But should not the youth entrusted to academic instruction at least be warned against such writings, and kept from early acquaintance with such dangerous propositions, until their power of judgment has matured—or rather, until the doctrine one wants to ground in them has taken firm enough root to resist vigorously all persuasion to the contrary, wherever it may come from?

If we had to stay with the dogmatic procedure in matters of pure reason, and if dealing with opponents had to be properly polemical—that is, such that one entered the fray and armed oneself with grounds of proof for the opposite assertions—then nothing would indeed be more advisable *for the moment,* but at the same time nothing more vain and fruitless *in the long run,* than to place the reason of the young under guardianship for a while, and so to protect it from seduction for at least that long. But if later on either curiosity or the fashion of the age plays such writings into their hands, will that youthful persuasion then stand the test? Whoever brings nothing but dogmatic weapons to resist his opponent's attacks, and does not know how to unfold the hidden dialectic that lies no less in his own breast than in his opponent's, sees specious arguments that have the advantage of novelty come forward against specious arguments that no longer have it, and that instead arouse the suspicion that the credulity of youth has been abused. He thinks he can show no better that he has outgrown the nursery than by disregarding those well-meant warnings; and, accustomed to

dogmatism, he drinks down in long draughts the poison that corrupts his principles dogmatically.

Precisely the opposite of what is advised here must happen in academic instruction—but, of course, only on the presupposition of thorough instruction in the critique of pure reason. [494] For in order to put its principles into practice as early as possible, and to show their sufficiency even in the face of the greatest dialectical illusion, it is absolutely necessary to direct the attacks so fearsome to the dogmatist against the student's reason, which is still weak but enlightened by critique, and to let him try to test the opponent's groundless assertions, point by point, against those principles. It cannot be at all hard for him to dissolve them into mere vapor, and so he feels early on his own power to secure himself completely against such harmful deceptions, which must in the end lose all their illusory force for him. Now the very blows that knock down the enemy's building must be just as ruinous to his own speculative edifice, should he perhaps think of erecting one. Yet he is entirely untroubled by this, since he has no need at all to live in it, but still has before him a prospect of the practical field, where he can with good reason hope for firmer ground on which to erect his rational and salutary system.

So there is, accordingly, no genuine polemic in the field of pure reason. Both parties are fencing with the air, scuffling with their own shadows; for they go beyond nature, where there is nothing for their dogmatic grip to seize and hold. Fight as they may: the shadows they hew apart grow back together in an instant, like the heroes in Valhalla, so that they can amuse themselves anew in bloodless battles.[18]

But neither is there any admissible skeptical use of pure reason, which one might call the principle of *neutrality* in all its disputes. To incite reason against itself, to hand it weapons on both sides, and then to watch its fiercest combat calmly and mockingly does not look good from a dogmatic point of view; it

18 In Norse myth, the fallen warriors in Odin's hall fight each day and are healed each evening to feast together.

has the look of a malicious and spiteful cast of mind. Yet when one considers the invincible blindness and bragging of the sophists, who will let themselves be moderated by no critique, there is really no other course than to oppose to the bragging on one side another bragging founded on the very same rights, so that reason may at least be brought up short by the resistance of an enemy, and may come to cast some doubt on its pretensions and give critique a hearing. But to let the matter rest entirely with these doubts, and [495] to set out to recommend the conviction and confession of one's ignorance not merely as a remedy for dogmatic self-conceit but at the same time as the way to end reason's dispute with itself, is an utterly futile scheme. It can by no means serve to bring reason to a state of rest; at most it is a means of waking reason from its sweet dogmatic dream so that it subjects its condition to more careful examination. This skeptical manner of extricating oneself from a vexing affair of reason seems, however, to be the short way, as it were, to a lasting philosophical peace—or at least it is the highway gladly taken by those who think they give themselves a philosophical air by scornfully despising all inquiries of this kind. I therefore find it necessary to present this way of thinking in its proper light.

THE IMPOSSIBILITY OF A SKEPTICAL SATISFACTION OF PURE REASON

Hume only limited reason; critique determines its boundaries, and skepticism is a resting place, not a dwelling.

The consciousness of my ignorance (unless this ignorance is at the same time cognized as necessary), instead of ending my inquiries, is rather the real cause that awakens them. All ignorance is ignorance either of things or of the determination and boundaries of my cognition. Now if the ignorance is contingent, it must drive me, in the first case, to investigate the things (objects) *dogmatically*, and in the second, to investigate the boundaries of my possible cognition *critically*. But that my ignorance is absolutely necessary, and therefore releases me from all

further inquiry, cannot be established empirically, by *observation*, but only critically, by *fathoming* the first sources of our cognition. Hence the determination of the boundaries of our reason can take place only according to grounds *a priori*. Its limitation, however—which is a cognition, though only an indeterminate one, of an ignorance that can never be entirely removed—can also be cognized *a posteriori*, through what always remains for us to know in spite of all our knowledge. The former cognition of one's ignorance, possible only through a critique of reason itself, is therefore *science*; the latter is nothing but *perception*, and one cannot say how far the inference drawn from it may reach. If I represent the earth's surface to myself (in accordance with sensory [496] illusion) as a plate, I cannot know how far it extends. But experience teaches me this: wherever I go, I always see a space around me into which I could proceed further. Hence I cognize the limits of my actual geography at any given time, but not the boundaries of all possible description of the earth. If, however, I have got so far as to know that the earth is a sphere and its surface a spherical surface, then from even a small part of it, for example, the magnitude of one degree, I can also cognize its diameter, and through this the complete bounding of the earth, that is, its surface, determinately and according to principles *a priori*. And although I am ignorant with regard to the objects this surface may contain, I am not ignorant with regard to the extent it encloses, its magnitude and its limits.

The sum total of all possible objects for our cognition seems to us to be a flat surface that has its apparent horizon—namely, that which encompasses its whole extent—and this we have called the concept of reason of unconditioned totality. To reach it empirically is impossible, and all attempts to determine it *a priori* according to a definite principle have been in vain. Yet all the questions of our pure reason are directed at what may lie outside this horizon, or at most perhaps on its boundary line.

The celebrated David Hume was one of these geographers of human reason. He believed he had adequately disposed of all those questions by banishing them outside the horizon of

human reason—a horizon he was nevertheless unable to determine. He dwelt chiefly on the principle of causality, and remarked quite correctly of it that its truth (indeed, even the objective validity of the concept of an efficient cause in general) rests on no insight at all, that is, on no cognition *a priori*; and that therefore what makes up its whole authority is not in the least the necessity of this law, but merely its general usefulness in the course of experience, together with a subjective necessity arising from that, which he calls custom. From the incapacity of our reason to make a use of this principle that goes beyond all experience, he then inferred the nullity of all pretensions of reason in general to go beyond the empirical.

[497] A procedure of this kind—subjecting the *facta* of reason to examination and, as the case may be, to reproof—may be called the *censorship* of reason. There is no doubt that this censorship leads inevitably to *doubt* about *all* transcendent use of principles. But this is only the second step, which is far from completing the work. The first step in matters of pure reason, which marks its childhood, is *dogmatic*. The second step, just named, is *skeptical*, and testifies to the caution of a power of judgment made wiser by experience.[19] But a third step is still needed, one that belongs only to the mature, adult power of judgment, which has for its foundation firm maxims of proven universality: namely, to subject to appraisal not the *facta* of reason but reason itself, as to its whole capacity and fitness for pure cognitions *a priori*. This is not the censorship but the *critique* of reason. Through it, not merely the *limits* but the determinate *boundaries* of reason—not merely ignorance in one part or another, but ignorance with regard to all possible questions of a certain kind—are not merely conjectured but proved from principles. Skepticism is thus a resting place for human reason, where it can reflect on its dogmatic wanderings and draw up a sketch of the region in which it finds itself, so as to choose its way from there on with greater certainty; but it is not a dwelling place for per-

19 Latin, "facts" or "deeds": here the actual claims and performances of reason, as distinct from reason's capacity itself.

manent residence. For that can be found only in complete certainty, whether of the cognition of the objects themselves or of the boundaries within which all our cognition of objects is enclosed.

Our reason is not, say, an indeterminably extended plane whose limits one cognizes only in a general way; rather, it must be compared to a sphere, whose radius can be found from the curvature of the arc on its surface (the nature of synthetic propositions *a priori*), and from which its content and its bounding can also be stated with certainty. Outside this sphere (the field of experience) nothing is an object for reason; indeed, even questions about such supposed objects concern only subjective principles of a thoroughgoing [498] determination of the relations that can occur among the concepts of the understanding within this sphere.

We are actually in possession of synthetic cognition *a priori*, as the principles of the understanding that anticipate experience demonstrate. Now if someone cannot make its possibility comprehensible to himself at all, he may at first doubt whether it really dwells in us *a priori*. But he cannot yet pass this off as its impossibility through the mere powers of the understanding, nor declare null and void all the steps that reason takes under its guidance. He can only say: if we had insight into its origin and genuineness, we would be able to determine the extent and boundaries of our reason; but until this has happened, all assertions of reason are blindly ventured. And in this way a thoroughgoing doubt of all dogmatic philosophy that goes its way without a critique of reason itself would be quite well founded; but reason could not on that account be entirely denied such progress, if the progress were prepared and secured by a better laying of foundations. For in the first place, all the concepts—indeed, all the questions—that pure reason puts before us lie not in experience but, once again, only in reason itself, and must therefore be capable of being solved and of being comprehended as to their validity or nullity. Nor are we entitled to dismiss these problems on the pretext of our incapacity, as though their

solution really lay in the nature of things, and to refuse to investigate them further. For reason alone has generated these ideas themselves in its own womb, and so it is bound to give an account of their validity or of their dialectical illusion.

All skeptical polemic is really directed only against the dogmatist, who continues gravely on his way without any mistrust of his original objective principles, that is, without critique; its purpose is merely to throw him off his plan and bring him to self-knowledge. In itself it settles nothing whatever about what we can know and what, by contrast, we cannot. All the failed dogmatic attempts of reason are *facta* [facts], which it is always useful to subject to censure. But this can decide nothing about reason's expectation of better success in its future efforts, or about its claims to that success. Mere censure can [499] therefore never bring the dispute over the rights of human reason to an end.

Hume is perhaps the most ingenious of all skeptics, and beyond dispute the most eminent with regard to the influence that the skeptical procedure can have in awakening a thorough examination of reason. So it is well worth the trouble to set out, so far as suits my purpose, the course of his inferences and the errors of so insightful and estimable a man—errors that nonetheless began on the track of truth.

Hume perhaps had it in mind, though he never fully developed it, that in judgments of a certain kind we go beyond our concept of the object. I have called this kind of judgment *synthetic*. How I can go beyond the concept I have so far by means of experience is open to no doubt. Experience is itself such a synthesis of perceptions: it augments the concept I have by means of one perception with others that are added to it. But we also believe that we can go beyond our concept *a priori* and extend our cognition. We attempt this either through the pure understanding, with regard to what can at least be an *object of experience*, or even through pure reason, with regard to such properties of things, or even the existence of such objects, as can never occur in experience. Our skeptic did not distinguish

these two kinds of judgment, as he ought to have done. He held straight out that this augmentation of concepts out of themselves—the self-birth, so to speak, of our understanding (together with reason), without its being impregnated by experience—was impossible. So he held all its supposed principles *a priori* to be imaginary, and found that they are nothing but a habit arising from experience and its laws, and hence merely empirical, that is, in themselves contingent, rules to which we ascribe a supposed necessity and universality. To assert this strange proposition, however, he appealed to the universally recognized principle of the relation of cause to effect. For since no faculty of the understanding can lead us from the concept of a thing to the existence of something else that would thereby be given universally and necessarily, he believed he could infer that without experience we have nothing that could augment our concept [500] and entitle us to such a judgment, one that extends itself *a priori*. That the sunlight which illuminates wax also melts it, while it hardens clay, no understanding could guess from the concepts we previously had of these things, much less infer according to a law; only experience could teach us such a law. We saw in the transcendental logic, by contrast, that although we can never go *immediately* beyond the content of the concept given to us, we can nevertheless cognize the law of its connection with other things entirely *a priori*—but in relation to a third thing, namely *possible* experience, and so still *a priori*. So if wax that was previously solid melts, I can cognize *a priori* that something must have preceded (for example, the sun's warmth) upon which this followed according to a constant law—although without experience I could not *determinately* cognize either the cause from the effect or the effect from the cause, *a priori* and without being taught by experience. He therefore inferred falsely from the contingency of our determination *according to the law* to the contingency of the *law* itself. And he confused going beyond the concept of a thing to possible experience (which happens *a priori* and constitutes the concept's objective reality) with the synthesis of the objects of actual

experience, which is of course always empirical. In doing so, however, he turned a principle of affinity, which has its seat in the understanding and asserts necessary connection, into a rule of association, which is found merely in the reproductive imagination and can present only contingent, not at all objective, combinations.

But the skeptical errors of this otherwise extremely acute man arose chiefly from a defect he shared with all dogmatists: he did not survey systematically all the kinds of *a priori* synthesis of the understanding. For then he would have found—to mention none of the others here—the *principle of persistence*, for example, as one that anticipates experience just as much as the principle of causality does. In that way he would also have been able to mark out determinate boundaries for the understanding that extends itself *a priori*, and for pure reason. But he merely *limits* our understanding without *setting boundaries* to it; he produces a general mistrust, but no determinate knowledge of the ignorance that is unavoidable for us. He brings some principles of the understanding [501] under censure without putting this understanding, in respect of its whole faculty, on the assay-balance of critique. And while denying it what it really cannot achieve, he goes further and disputes its whole faculty of extending itself *a priori*, although he never took this whole faculty into account. So he suffers what always strikes skepticism down: he is himself doubted. For his objections rest only on *facta*, which are contingent, and not on principles that could compel a necessary renunciation of the right to dogmatic assertions.

He also recognizes no distinction between the well-founded claims of the understanding and the dialectical pretensions of reason, against which his attacks are chiefly directed. So reason, whose quite distinctive impetus has not been in the least disturbed here, but only hindered, does not feel that the space for its expansion has been closed off, and it can never be entirely diverted from its attempts, though it is pinched here and there. For one arms oneself against attacks, and sets one's head all the

more stubbornly on pushing one's demands through. But a complete survey of one's whole faculty, and the conviction that arises from it—that a small possession is certain while higher claims are vain—removes all dispute and moves one to rest content, peaceably, with a limited but undisputed property.

Consider the uncritical dogmatist, who has not measured the sphere of his understanding, and so has not determined the boundaries of his possible cognition according to principles; who therefore does not know in advance how much he can do, but thinks to find it out by mere trial. Against him these skeptical attacks are not only dangerous but even ruinous. For if he is caught out in a single assertion that he cannot justify, but whose illusion he also cannot explain from principles, suspicion falls on all his assertions, however persuasive they may otherwise be.

And so the skeptic is the disciplinarian of the dogmatic reasoner, driving him toward a sound critique of the understanding and of reason itself. Once the reasoner has got that far, he has no further challenge to fear. For he then distinguishes his possession from what lies wholly outside it, to which he makes no claim and about which he cannot become entangled in disputes. Thus the skeptical procedure [502] is not in itself *satisfying* for the questions of reason, but it is *preparatory*: it awakens reason's caution and points to thorough means that can secure it in its rightful possessions.

SECTION 3. THE DISCIPLINE OF PURE REASON WITH REGARD TO HYPOTHESES

Transcendental hypotheses cannot explain nature, but may serve as weapons to defend a position against dogmatic denial.

Since through the critique of our reason we at last know this much—that in its pure and speculative use we can in fact know nothing at all—should it not open all the wider a field for *hypotheses*? For at least we are permitted to invent and to opine, even if not to assert.

Where imagination is not to *run wild* but to *invent* under the strict supervision of reason, something must always first be completely certain, not invented or mere opinion, and that is the *possibility* of the object itself. Then it is quite permissible to take refuge in opinion concerning the object's actuality. But in order not to be groundless, this opinion must be brought into connection, as a ground of explanation, with what is actually given and therefore certain; and then it is called a *hypothesis*.

Now we cannot form the least concept of the possibility of dynamical connection *a priori*, and the category of the pure understanding does not serve to devise such connection, but only to understand it where it is met with in experience. So we cannot originally think up, in accordance with these categories, a single object with a new property that cannot be exhibited empirically, and lay it at the basis of a permissible hypothesis; for that would mean supplying reason with empty figments of the brain instead of concepts of things. Thus it is not permissible to invent any new original powers: for example, an understanding capable of intuiting its object without senses, or a force of expansion without any contact, or a new kind of substance, for example one that would be present in space without impenetrability. Nor, consequently, may we invent any community [503] of substances different from every kind that experience offers, any presence other than in space, any duration other than merely in time. In a word: our reason can use only the conditions of possible experience as conditions of the possibility of things. It can by no means, as it were, create such conditions for itself entirely independently of these, because concepts of that kind, though free of contradiction, would nevertheless also be without an object.

The concepts of reason are, as has been said, mere ideas. They certainly have no object in any experience, but that does not mean they designate objects that are invented and at the same time assumed to be possible. They are thought merely problematically, so that in relation to them (as heuristic fictions) we may ground regulative principles for the systematic use of

the understanding in the field of experience. If one departs from this, they are mere thought-entities whose possibility cannot be proved, and which therefore cannot be laid, by means of a hypothesis, at the basis of an explanation of actual appearances. To *think* the soul as simple is quite permissible, in order to make this *idea* of a complete and necessary unity of all the powers of the mind—even though one cannot see it *in concreto*—the principle by which we judge its inner appearances. But to *assume* the soul as a simple substance (a transcendent concept) would be a proposition that is not only unprovable (as several physical hypotheses are) but also entirely arbitrary and blindly ventured. For the simple cannot occur in any experience whatever; and if by substance one here means the persistent object of sensible intuition, the possibility of a *simple appearance* cannot be seen at all. Merely intelligible beings, or *merely* intelligible properties of the things of the sensible world, cannot be assumed as opinion with any well-founded warrant of reason—although (since we have no concepts of their possibility or impossibility) they cannot be dogmatically denied either, on the strength of any supposed better insight.

To explain given appearances, no other things and grounds of explanation can be adduced than those that have been put in connection with the given appearances according to already known laws of appearances. A *transcendental hypothesis*, in which a mere idea of reason were used to explain natural things, would therefore [504] be no explanation at all. For what one does not sufficiently understand from known empirical principles would be explained by something of which one understands nothing at all. The principle of such a hypothesis would also really serve only to satisfy reason, and not to further the use of the understanding with regard to objects. Order and purposiveness in nature must in turn be explained from natural grounds and according to natural laws. Here even the wildest hypotheses, provided only that they are physical, are more tolerable than a hyperphysical one, that is, an appeal to a divine author who is presupposed for this purpose. For that would be a principle of

lazy reason (*ignava ratio*): to pass over all at once every cause whose objective reality, at least as to its possibility, we can still come to know through continued experience, in order to rest in a mere idea that is very comfortable for reason. As for the absolute totality of the ground of explanation in the series of such grounds, that can present no obstacle with regard to the objects of the world. For since these are nothing but appearances, nothing complete can ever be hoped for in them in the synthesis of the series of conditions.

Transcendental hypotheses of the speculative use of reason, and a freedom to make use of hyperphysical grounds of explanation, if need be, to make up for a lack of physical ones, cannot be permitted at all. This is partly because reason is not carried any further by them, but rather has the whole progress of its use cut off; partly because this license would in the end have to rob reason of all the fruits of cultivating its own proper soil, namely experience. For whenever explaining nature becomes difficult for us here or there, we constantly have a transcendent ground of explanation at hand that relieves us of that investigation. Our inquiry then concludes not with insight but with the complete incomprehensibility of a principle that was devised in advance in such a way that it had to contain the concept of what is absolutely first.

The second requirement for a hypothesis to be worth accepting is its sufficiency for determining *a priori*, from it, the consequences that are given. If for this purpose one is compelled to call in auxiliary hypotheses, they arouse the suspicion [505] of mere invention. For each of them in itself needs the same justification that the underlying thought required, and so cannot serve as a competent witness. If, on the presupposition of an unlimitedly perfect cause, there is indeed no lack of grounds of explanation for all the purposiveness, order and magnitude found in the world, that cause still needs new hypotheses in view of the deviations and evils that show themselves, at least according to our concepts, in order to be saved from these as objections. If the simple self-subsistence of the human soul,

which has been laid at the basis of its appearances, is challenged by the difficulties raised by its phenomena, which resemble the alterations of a matter (growth and decline), then new hypotheses must be called in to help. These are not without a show of plausibility, but they have no credentials whatever except those given them by the opinion adopted as the main ground—the very opinion they are supposed to speak up for.

If the assertions of reason cited here as examples (the incorporeal unity of the soul and the existence of a highest being) are to count not as hypotheses but as dogmas proved *a priori*, then they are not under discussion here at all. In that case, however, one must take good care that the proof has the apodictic certainty of a demonstration. For to want to make the actuality of such ideas merely *probable* is an absurd undertaking, just as if one thought to prove a proposition of geometry merely probably. Reason cut off from all experience can cognize everything only *a priori* and as necessary, or not at all. Hence its judgment is never opinion; it is either abstention from all judgment or apodictic certainty. Opinions and probable judgments about what belongs to things can occur only as grounds of explanation of what is actually given, or as consequences, according to empirical laws, of what actually underlies it—and hence only in the series of objects of experience. Outside this field, *opining* amounts to playing with thoughts—unless, perhaps, one merely held the opinion, about an uncertain path of judgment, that one might find the truth on it.

But although in merely speculative questions of pure reason there is no place for hypotheses as a basis for propositions, they are nevertheless entirely admissible for defending propositions if need be—that is, not [506] in dogmatic but in polemical use. By defense, however, I do not mean adding to the grounds of proof for one's assertion, but merely thwarting the sham insights of the opponent, which are supposed to damage the proposition we assert. Now all synthetic propositions from pure reason have this peculiarity: even if the one who asserts the reality of certain ideas never knows enough to make his proposition certain, the

opponent on the other side can know just as little to assert the opposite. This equality in the lot of human reason favors neither side in speculative cognition, and that is also the proper battlefield of feuds that can never be settled. But it will be shown in what follows that, with regard to *practical use*, reason has a right to assume something that it would in no way be entitled to presuppose in the field of mere speculation without sufficient grounds of proof. For all such presuppositions damage the perfection of speculation—which, however, practical interest does not concern itself with at all. There, then, reason is in a possession whose legitimacy it need not prove, and of which it could not in fact furnish the proof. So the opponent must prove. But the opponent knows just as little about the doubted object, so as to show its nonexistence, as the first party, who asserts its actuality, knows about it. So here an advantage shows itself on the side of the one who asserts something as a practically necessary presupposition (*melior est conditio possidentis* [the position of the possessor is the stronger]). For he is free to use for his good cause, as it were in self-defense, the very same means that his opponent uses against it, namely hypotheses. These are not meant at all to strengthen the proof of his cause, but only to show that the opponent understands far too little of the object of the dispute to flatter himself that he has any advantage of speculative insight over us.[20]

Hypotheses are therefore permitted in the field of pure reason only as weapons of war—not to ground a right on them, but only to defend it. But here we must always look for the opponent within ourselves. For speculative reason in its transcendental use is dialectical *in itself*. The objections that might be feared lie in ourselves. We must seek them out, like old claims that never lapse, in order to ground a perpetual peace on their [507] annihilation. External calm is only apparent. The seed of these challenges, which lies in the nature of human reason, must be rooted out. But how can we root it out unless we give it

20 A maxim of Roman law: in a disputed claim, the party in possession is favored, and the burden of proof falls on the challenger.

freedom, and even nourishment, to send up shoots, so that it reveals itself, and then destroy it root and all? So think up objections yourselves that no opponent has yet hit upon; even lend him weapons, or grant him the most favorable position he could wish for! There is nothing at all to fear in this, but much to hope for: namely, that you will gain for yourselves a possession that can never again be challenged in all the future.

Your complete armor also includes the hypotheses of pure reason. Though they are only leaden weapons (because they are not steeled by any law of experience), they are still always as effective as those any opponent may use against you. Suppose, then, that you have assumed (in some other, non-speculative respect) that the soul is immaterial in nature and subject to no bodily transformation, and you run up against this difficulty: experience nevertheless seems to prove that both the elevation and the derangement of our mental powers are merely different modifications of our organs. Then you can weaken the force of this proof by assuming that our body is nothing but the fundamental appearance to which, as its condition, the whole faculty of sensibility, and with it all thinking, relates in our present state (in life). Separation from the body, you may assume, is the end of this sensible use of your cognitive power and the beginning of its intellectual use. The body would then be not the cause of thinking but a merely restricting condition of it. It would therefore have to be regarded as furthering the sensible and animal life, but all the more as hindering the pure and spiritual life; and the dependence of the former on the constitution of the body would prove nothing about the dependence of the whole of life on the state of our organs. But you can go still further, and even discover new doubts that have either not been raised or not been pressed far enough.

Take the contingency of procreation, which in human beings, as in creatures without reason, depends on opportunity, and besides that often on sustenance, on the government and its moods and whims, and often even on vice. This poses a great difficulty for the opinion [508] that a creature endures on into

eternity whose life first began under circumstances so insignificant and so entirely left to our freedom. As for the continued existence of the whole species (here on earth), this difficulty matters little, because chance in the individual case is nonetheless subject to a rule in the whole. But to expect so mighty an effect from such trivial causes in the case of each individual certainly seems questionable. Against this, however, you can summon a transcendental hypothesis: that all life is really only intelligible, not subject at all to alterations in time, and neither began with birth nor will be ended by death; that this life is nothing but a mere appearance, that is, a sensible representation of the pure spiritual life, and the whole sensible world a mere image that hovers before our present mode of cognition and, like a dream, has no objective reality in itself; that if we were to intuit things and ourselves *as they are*, we would see ourselves in a world of spiritual natures, our only true community with which neither began with birth nor will cease with the death of the body (as mere appearances); and so on.

Now we do not in the least know, nor seriously assert, any of what we here put forward hypothetically against the attack. None of it is even an idea of reason; it is merely a concept *devised* for self-defense. Still, in doing so we proceed entirely in accordance with reason. The opponent thinks he has exhausted all possibility, falsely passing off the lack of its empirical conditions as a proof of the complete impossibility of what we believe. We merely show him that he can no more encompass the whole field of possible things in themselves through mere laws of experience than we can acquire anything for our reason, in a well-founded way, outside experience. Whoever deploys such hypothetical countermeasures against the pretensions of a boldly denying opponent must not be taken to want to adopt them as his true opinions. He abandons them as soon as he has disposed of the opponent's dogmatic conceit. For however modest and moderate it may look when someone behaves merely by refusing and denying with regard to the assertions of others, as soon as he wants to make these objections of his count as proofs

of the opposite, the claim is always no less [509] proud and conceited than if he had taken up the affirmative party and its assertion.

From this we see, then, that in the speculative use of reason hypotheses have no validity as opinions in themselves, but only relative to opposing transcendent pretensions. For extending the principles of possible experience to the possibility of things in general is just as transcendent as asserting the objective reality of concepts that can find their objects nowhere except outside the boundary of all possible experience. What pure reason judges assertorically must (like everything reason cognizes) be necessary, or it is nothing at all. Accordingly, pure reason in fact contains no opinions at all. The hypotheses in question, however, are only problematic judgments, which at least cannot be refuted, although of course they cannot be proved by anything either. So they are purely private opinions; yet they cannot well be dispensed with (even for our own inner peace of mind) against scruples that stir. But they must be kept in this quality, and one must take great care that they do not come forward as authenticated in themselves and as having some absolute validity, and so drown reason in fictions and deceptions.

SECTION 4. THE DISCIPLINE OF PURE REASON WITH REGARD TO ITS PROOFS

Transcendental proofs must justify their principles, admit only one proof each, and never be apagogic.

Among all proofs of a synthetic cognition *a priori*, the proofs of transcendental and synthetic propositions have this peculiarity: in them reason may not turn directly to the object by means of its concepts, but must first establish the objective validity of the concepts and the possibility of their synthesis *a priori*. This is not merely a necessary rule of caution; it concerns the essence and the possibility of the proofs themselves. If I am to go beyond the concept of an object *a priori*, this is impossible without a special guideline that lies outside this concept [510] . In mathematics it is *a priori* intuition that guides my synthesis, and there all

inferences can be carried out immediately in pure intuition. In transcendental cognition, so long as it deals merely with concepts of the understanding, this guide is possible experience. For the proof does not show that the given concept (for example, of what happens) leads directly to another concept (that of a cause); such a transition would be a leap that could not be justified at all. Rather, it shows that experience itself, and hence the object of experience, would be impossible without such a connection. So the proof had to indicate at the same time the possibility of arriving synthetically and *a priori* at a certain cognition of things that was not contained in the concept of them. Without this attention, proofs run like water that has broken its banks, wild and across country, wherever the slope of hidden association happens to lead them. The illusion of conviction, which rests on subjective causes of association and is taken for insight into a natural affinity, cannot counterbalance at all the misgivings that must rightly arise about such venturesome steps. That is why all attempts to prove the principle of sufficient reason have, by the general admission of experts, been in vain. And before transcendental critique appeared, people preferred—since they still could not abandon this principle—to appeal defiantly to sound common sense (a refuge that always proves the cause of reason to be desperate) rather than attempt new dogmatic proofs.

But if the proposition to be proved is an assertion of pure reason, and if I even want to go beyond my concepts of experience by means of mere ideas, then the proof would have to contain within itself, all the more, the justification of such a step of synthesis (if it were possible at all) as a necessary condition of its probative force. So however plausible the supposed proof of the simple nature of our thinking substance from the unity of apperception may be, it faces an unavoidable misgiving. Absolute simplicity is not a concept that can be related immediately to a perception; as an idea, it can only be inferred. So it cannot be seen at all how the mere consciousness that is contained *in all thinking*, or at least can [511] be—though to that extent it is a

simple representation—is supposed to lead me to the consciousness and knowledge of a thing in *which* alone thinking can be contained. For if I represent to myself the force of my body in motion, then to that extent it is absolute unity for me, and my representation of it is simple. So I can also express this representation by the motion of a point, because the body's volume plays no part here and can be thought as small as one likes, and so also as located in a point, without any diminution of the force. But I will not conclude from this that, if nothing is given me but the moving force of a body, the body can be thought as a simple substance, merely because its representation abstracts from all magnitude of spatial content and is therefore simple. Now the simple in abstraction is entirely different from the simple in the object; and the I, which in the first sense contains no manifoldness *within itself*, can in the second sense, where it means the soul itself, be a very complex concept—one, namely, that contains and designates a great deal *under itself*. In this I discover a paralogism. But to suspect it in advance (for without such a provisional conjecture one would form no suspicion at all against the proof), it is absolutely necessary to have at hand a permanent criterion of the possibility of such synthetic propositions as are supposed to prove more than experience can give. This criterion consists in this: that the proof is conducted not directly to the required predicate, but only by means of a principle of the possibility of extending our given concept *a priori* to ideas and of realizing these. Suppose this caution is always exercised: before the proof is even attempted, one first wisely considers how, and on what ground of hope, one might expect such an extension through pure reason, and where, in such a case, one means to get these insights, which cannot be developed from concepts, nor anticipated in relation to possible experience. Then one can spare oneself many difficult and yet fruitless labors. For one then demands of reason nothing that obviously exceeds its faculty; or rather, one subjects reason, which in fits of its speculative craving for extension does not like to be restricted, to the discipline of abstinence.

The first rule, then, is this: attempt no transcendental proofs without first having considered, and justified oneself on this point, where [512] one means to take the fundamental principles on which one plans to build them, and with what right one can expect success in inferences from them. If they are fundamental principles of the understanding (for example, of causality), it is futile to try to reach ideas of pure reason by means of them; for those principles hold only for objects of possible experience. If they are to be fundamental principles from pure reason, then again all effort is futile. For reason does have such principles, but as objective fundamental principles they are all dialectical, and can at most be valid as regulative principles of the systematically coherent use of experience. But if such alleged proofs already exist, then set the *non liquet* [it is not clear] of your matured power of judgment against their deceptive conviction. And even though you cannot yet see through their deception, you still have every right to demand the deduction of the principles used in them—a deduction that, if these principles are supposed to have sprung from mere reason, can never be supplied to you. So you do not even need to concern yourselves with unraveling and refuting every groundless illusion. You can dismiss the whole of dialectic, inexhaustible as it is in tricks, in whole heaps at once, before the court of a critical reason that demands laws.

The *second* peculiarity of transcendental proofs is this: for each transcendental proposition only *a single* proof can be found. If I am to infer not from concepts but from the intuition that corresponds to a concept—whether a pure intuition, as in mathematics, or an empirical one, as in natural science—then the underlying intuition gives me a manifold material for synthetic propositions. I can connect this material in more than one way and, since I may start from more than one point, reach the same proposition by different routes.

But every transcendental proposition starts merely from *one* concept, and states the synthetic condition of the possibility of the object according to this concept. So the ground of proof can

only be a single one, since outside this concept there is nothing further by which the object could be determined. The proof can therefore contain nothing more than the determination of an object in general according to this concept, which is itself only a single one. In the transcendental Analytic, for example, we derived the principle "everything that happens has a cause" from [513] the sole condition of the objective possibility of a concept of what happens in general: namely, that the determination of an event in time, and hence this (event) as belonging to experience, would be impossible unless it stood under such a dynamical rule. This is also the only possible ground of proof. For only because an object is determined for the concept by means of the law of causality does the represented event have objective validity, that is, truth. Other proofs of this principle have indeed been attempted, for example from contingency. But when this is examined closely, one can find no mark of contingency except *happening*—that is, existence preceded by a nonexistence of the object—and so one always comes back to the very same ground of proof. If the proposition "everything that thinks is simple" is to be proved, one does not dwell on the manifold of thinking, but holds merely to the concept of the I, which is simple and to which all thinking is related. The same holds for the transcendental proof of the existence of God, which rests solely on the convertibility of the concepts of the most real being and the necessary being, and cannot be sought anywhere else.

This cautionary remark greatly reduces the scope of the critique of the assertions of reason. Where reason conducts its business through mere concepts, only a single proof is possible, if any is possible at all. So when one sees the dogmatist come forward with ten proofs, one can be sure that he has none at all. For if he had one that proved apodictically (as must be the case in matters of pure reason), what would he need the others for? His aim is only like that of the well-known parliamentary advocate: this argument is for this judge, that one for that judge. He means to exploit the weakness of his judges, who, without going

deeply into things and wanting to be quickly done with the business, seize on the first thing that happens to strike them and decide accordingly.

The third peculiar rule of pure reason, when it is subjected to a discipline with regard to transcendental proofs, is that its proofs must never be *apagogic* but always *ostensive*. The direct or ostensive proof, in every kind of cognition, is the one that combines with conviction of the truth an insight into its sources as well. The apagogic proof, by contrast, [514] can produce certainty, but not comprehensibility of the truth with regard to its connection with the grounds of its possibility. Hence apagogic proofs are more an emergency aid than a procedure that satisfies all the aims of reason.[21] Yet they have one advantage in evidentness over direct proofs: contradiction always carries more clarity with it in representation than the best connection does, and so comes closer to the intuitiveness of a demonstration.

The real reason why apagogic proofs are used in various sciences is presumably this. When the grounds from which a certain cognition is to be derived are too manifold or lie too deeply hidden, one tries whether it cannot be reached through its consequences. Now the *modus ponens*—inferring the truth of a cognition from the truth of its consequences—would be permitted only if all its possible consequences are true; for then only a single ground is possible for these, which is therefore also the true one.[22] But this procedure is impracticable, because it exceeds our powers to see all the possible consequences of any proposition we assume. Still, one uses this kind of inference, though admittedly with a certain indulgence, when the point is to prove something merely as a hypothesis. One then grants the inference by analogy: that if as many consequences as one has ever tried agree well with an assumed ground, all the other pos-

21 Apagogic: indirect, that is, proving a proposition by showing that its opposite leads to falsehood (reductio ad absurdum); ostensive proof shows it directly from its grounds.

22 Kant uses *modus ponens* here for inferring the truth of a ground from the truth of its consequences, and *modus tollens* for inferring the falsity of a ground from a single false consequence.

sible ones will agree with it too. For this reason a hypothesis can never be turned into demonstrated truth by this route. The *modus tollens* of syllogisms, which infer from the consequences to the grounds, proves not only quite rigorously but also extremely easily. For if even a single false consequence can be drawn from a proposition, then this proposition is false. So instead of running through the whole series of grounds in an ostensive proof, which can lead to the truth of a cognition by means of complete insight into its possibility, one need only find a single false one among the consequences that flow from its opposite; then this opposite is also false, and hence the cognition one had to prove is true.

But the apagogic kind of proof can be permitted only in those sciences where it is impossible [515] to *pass off* what is subjective in our representations as the objective, that is, as cognition of what belongs to the object. Where such substitution prevails, however, it must often happen that the opposite of a certain proposition merely contradicts the subjective conditions of thinking, but not the object; or that both propositions contradict each other only under a subjective condition that is falsely taken to be objective, so that, since the condition is false, both can be false, without its being possible to infer the truth of the one from the falsity of the other.

In mathematics this subreption is impossible; that is why apagogic proofs have their proper place there. In natural science, because everything there is based on empirical intuitions, such surreptitious substitution can for the most part be prevented by many compared observations; but there this kind of proof is mostly of little importance. The transcendental attempts of pure reason, however, are all made within the proper medium of dialectical illusion, that is, of the subjective, which offers itself to reason in its premises as objective, or even forces itself upon it as such. Here, then, as far as synthetic propositions are concerned, it cannot be permitted at all to justify one's assertions by refuting the opposite. For either this refutation is nothing but the mere representation of the conflict

between the opposing opinion and the subjective conditions under which our reason can comprehend anything, which does nothing at all toward rejecting the thing itself on that account. (Thus, for example, unconditioned necessity in the existence of a being cannot be comprehended by us at all, and therefore rightly opposes, *subjectively*, every speculative proof of a necessary supreme being, but wrongly opposes the possibility of such an original being *in itself*.) Or both sides, the affirming and the denying, deceived by transcendental illusion, base themselves on an impossible concept of the object; and then the rule holds: *non entis nulla sunt praedicata* [what does not exist has no predicates], that is, both what one asserted affirmatively and what one asserted negatively about the object are incorrect, and one cannot arrive apagogically at cognition of the truth by refuting the opposite. For example, if it is presupposed that the sensible world is given *in itself* in its totality, then it is false that it must be *either* infinite in space *or* finite and bounded, because both are false. For appearances (as mere representations) that were nevertheless given *in themselves* (as objects) are [516] something impossible; and the infinity of this imagined whole would indeed be unconditioned, but would contradict (because everything in appearances is conditioned) the unconditioned determination of magnitude that is nevertheless presupposed in the concept.

The apagogic kind of proof is also the real deception with which admirers of the thoroughness of our dogmatic reasoners have always been kept in suspense. It is, as it were, the champion who wants to prove the honor and the indisputable right of the party he has taken up by offering to brawl with anyone who might doubt it. Yet such bragging settles nothing about the matter itself, but only about the respective strength of the opponents—and even that only on the side of the one who acts as attacker. The spectators, seeing that each in his turn is now victor, now vanquished, often take occasion from this to doubt skeptically the very object of the dispute. But they have no cause to do so, and it is enough to call out to them: *non defensoribus istis*

tempus eget [the times do not need such defenders].[23] Everyone must conduct his case by means of a legal proof carried out through a transcendental deduction of the grounds of proof, that is, directly, so that one may see what his claims of reason have to offer on their own behalf. For if his opponent relies on subjective grounds, he is of course easy to refute—but with no advantage for the dogmatist, who as a rule clings just as much to subjective causes of judgment and can likewise be driven into a corner by his opponent. But if both parties proceed merely directly, then either they will notice for themselves the difficulty, indeed the impossibility, of finding the title to their assertions, and in the end be able to appeal only to prescription; or critique will easily uncover the dogmatic illusion and compel pure reason to give up its overreaching pretensions in speculative use and to withdraw within the boundaries of its own proper territory, namely practical principles.[24]

23 Virgil, *Aeneid* 2.521–22: Hecuba's words to the aged Priam as he arms himself during the fall of Troy.

24 Prescription: the legal principle by which long, unchallenged possession confers title.

Doctrine of Method: Canon, Architectonic, History

What can I know? What should I do? What may I hope? Reason's practical aims and the system of philosophy.

[517] It is humbling for human reason that in its pure use it accomplishes nothing, and even needs a discipline to curb its extravagances and to ward off the deceptions that arise for it from them. On the other hand, it is elevated again and given confidence in itself by the fact that it can and must exercise this discipline itself, without permitting any other censorship over it; and likewise by the fact that the boundaries it is compelled to set to its speculative use at the same time restrict the sophistical pretensions of every opponent, and so can secure against all attacks whatever may remain to it of its formerly exaggerated demands. The greatest and perhaps only usefulness of all philosophy of pure reason is therefore, no doubt, merely negative: it serves not as an organon for extension but as a discipline for determining boundaries, and instead of discovering truth it has only the quiet merit of preventing errors.

Nevertheless, there must somewhere be a source of positive cognitions that belong to the domain of pure reason—cognitions that give rise to errors perhaps only through misunderstanding, but that in fact constitute the goal of reason's striving. For to what else could we ascribe its unquenchable desire to gain a firm footing somewhere, at any cost, beyond the boundary of experience? Reason has a presentiment of objects that carry a great interest for it. It sets out on the path of mere speculation to approach them; but they flee before it. Presumably it may hope

for better fortune on the only path still left to it, namely that of its *practical* use.

By a canon I understand the sum total of the *a priori* principles of the correct use of certain cognitive faculties in general. Thus general logic, in its analytic part, is a canon for understanding and reason in general, but only as regards form, since it abstracts from all content. Thus the transcendental Analytic was the canon of the pure *understanding*, for it alone is capable of true synthetic cognitions *a priori*. But where no correct use of a cognitive power [518] is possible, there is no canon. Now, by all the proofs given so far, all synthetic cognition of pure *reason* in its speculative use is entirely impossible. There is therefore no canon at all of its speculative use (for this use is through and through dialectical); in this respect all transcendental logic is nothing but discipline. Consequently, if there is any correct use of pure reason at all—in which case there must also be a canon of it—this canon will concern not the speculative but the *practical use of reason*, which we shall therefore now examine.

SECTION 1. THE ULTIMATE END OF THE PURE USE OF OUR REASON

Freedom, immortality and God matter not for knowledge but for what we ought to do.

Reason is driven by a propensity of its nature to go beyond its use in experience, to venture out in a pure use, by means of mere ideas, to the outermost boundaries of all cognition, and to find rest only in the completion of its circle, in a self-subsisting systematic whole. Now, is this striving grounded merely in its speculative interest, or rather solely and exclusively in its practical interest?

I shall now set aside the fortune that pure reason meets with for speculative purposes, and ask only about the problems whose solution constitutes its final end—whether or not it attains this end—and in relation to which all other ends have merely the value of means. By the nature of reason, these highest ends must in turn have unity, so as to advance in a

united way that interest of humanity which is subordinate to no higher one.

The final aim to which the speculation of reason in its transcendental use ultimately tends concerns three objects: the freedom of the will, the immortality of the soul, and the existence of God. With respect to all three, the merely speculative interest of reason is very slight; and for its sake alone one would hardly undertake a [519] wearisome labor of transcendental inquiry, wrestling with unceasing obstacles. For of all the discoveries that might be made here, we could make no use that would prove its value *in concreto*, that is, in the investigation of nature. The will may well be free; yet this can concern only the intelligible cause of our willing. For as regards the phenomena in which it is expressed, that is, actions, we must, by an inviolable fundamental maxim without which we could exercise no reason at all in its empirical use, never explain them otherwise than all other appearances of nature, namely according to its unchangeable laws. Second, even if the spiritual nature of the soul (and with it its immortality) could be understood, we still could not count on it, either as a ground for explaining the appearances of this life or as regards the particular constitution of a future state. For our concept of an incorporeal nature is merely negative. It does not extend our cognition in the least, nor does it offer any suitable material for inferences, except perhaps for such as can count only as fictions, which philosophy does not permit. Third, even if the existence of a highest intelligence were proved, we could indeed make purposiveness in the arrangement and order of the world intelligible to ourselves in general; but we would by no means be entitled to derive from it any particular arrangement and order, or to infer one boldly where it is not perceived. For it is a necessary rule of the speculative use of reason not to pass over natural causes, and not to abandon what we can learn from experience in order to derive something we know from what wholly surpasses all our knowledge. In a word, these three propositions always remain transcendent for speculative reason, and have no immanent use at all—that is, no use

that is admissible for objects of experience and hence in some way useful to us. Considered in themselves, they are wholly idle and, moreover, extremely difficult exertions of our reason.

If, then, these three cardinal propositions are not at all necessary to us for knowledge, and are nonetheless urgently commended to us by our reason, their importance must properly concern only the *practical*.

[520] Everything is practical that is possible through freedom. But if the conditions for exercising our free choice are empirical, reason can have no use there other than a regulative one, and can serve only to bring about the unity of empirical laws. In the doctrine of prudence, for example, the whole business of reason consists in uniting all the ends that our inclinations set us into the one end, *happiness*, and in harmonizing the means for attaining it. For this reason, reason can supply here only *pragmatic* laws of free conduct, for reaching the ends commended to us by the senses, and hence no pure laws determined completely *a priori*. By contrast, pure practical laws, whose end is given by reason completely *a priori*, and which command not under empirical conditions but absolutely, would be products of pure reason. Such, however, are the *moral* laws. Consequently they alone belong to the practical use of pure reason and admit of a canon.

The whole apparatus of reason, then, in the working-out that can be called pure philosophy, is in fact directed only at the three problems mentioned. These, however, have in turn their more remote aim, namely *what is to be done* if the will is free, if there is a God and a future world. Since this concerns our conduct in relation to the highest end, the final aim of nature, which has wisely provided for us in the constitution of our reason, is properly directed only at the moral.

But caution is needed. Since we are turning our attention to an object that is foreign[1] to transcendental philosophy, we must not stray into digressions and violate the unity of the system; on the other hand, we must not say too little about our new material and so fall short in clarity or persuasiveness. I hope to achieve both by keeping as close as possible to the [521] transcendental, and by setting entirely aside whatever in this may be psychological, that is, empirical.

Here it should first be noted that for now I shall use the concept of freedom only in the practical sense. I set aside here, as settled above, the concept in its transcendental meaning, which cannot be presupposed empirically as a ground for explaining appearances but is itself a problem for reason. A choice is merely *animal* (*arbitrium brutum*) if it cannot be determined otherwise than by sensible impulses, that is, *pathologically*. But a choice that can be determined independently of sensible impulses, and hence by motives represented only by reason, is called *free choice* (*arbitrium liberum*); and everything connected with it, whether as ground or as consequence, is called *practical*. Practical freedom can be proved through experience.[2] For it is not merely what stimulates—that is, what directly affects the senses—that determines human choice. We have a faculty of overcoming the impressions on our sensible faculty of desire by representations of what is useful or harmful even in a more remote way. These deliberations about what is desirable with respect to our whole state—that is, good and useful—rest on reason. Reason therefore also gives laws that are imperatives, that is, objective *laws of freedom*. They say *what ought to happen*,

1 KANT'S NOTE. All practical concepts refer to objects of liking or disliking, that is, of pleasure and displeasure, and hence, at least indirectly, to objects of our feeling. But feeling is not a power of representing things; it lies outside the entire cognitive power. Hence the elements of our judgments insofar as they relate to pleasure or displeasure—and so the elements of practical judgments—do not belong to the sum total of transcendental philosophy, which has to do solely with pure cognitions *a priori*.

2 *Arbitrium brutum* / *arbitrium liberum* (Latin): animal choice / free choice. "Pathological" is Kant's technical term for what is determined by being sensibly affected (from Greek *pathos*), not for anything diseased.

even though perhaps it never does happen, and in this they differ from *laws of nature*, which deal only with *what does happen*. That is why they are also called practical laws.

But whether reason itself, in these actions by which it prescribes laws, is not in turn determined by other influences, and whether what is called freedom with respect to sensible impulses might not in turn be nature with respect to higher and more remotely operating causes—this does not concern us in the practical sphere. There we ask reason in the first instance only for the *precept* of conduct. It is a merely speculative question, which we can set aside so long as our aim is directed at what to do or to refrain from doing. We thus cognize practical freedom through experience as one of the natural causes, namely a causality of reason in determining the will; whereas [522] transcendental freedom demands an independence of this reason itself (with respect to its causality in beginning a series of appearances) from all determining causes of the sensible world. To that extent transcendental freedom seems to run counter to the law of nature, and so to all possible experience, and therefore remains a problem. But this problem does not belong to reason in its practical use. So in a canon of pure reason we have to do with only two questions that concern the practical interest of pure reason, and with respect to which a canon of its use must be possible, namely: Is there a God? Is there a future life? The question about transcendental freedom concerns merely speculative knowledge. We can set it aside as entirely indifferent when the practical is at issue, and a sufficient discussion of it has already been given in the Antinomy of Pure Reason.

SECTION 2. THE IDEAL OF THE HIGHEST GOOD

Reason's interest unites in three questions; morality makes us worthy of happiness and grounds hope in God.

In its speculative use, reason led us through the field of experiences; and since complete satisfaction is never to be found there

for it, it led us on from there to speculative ideas—which, however, in the end led us back again to experience, and so fulfilled its aim in a way that, though useful, did not at all match our expectation. Now one more attempt remains to us: namely, whether pure reason is also to be met with in its practical use; whether in that use it leads to the ideas that attain the highest ends of pure reason we have just cited; and whether, from the standpoint of its practical interest, it can therefore grant what it entirely refuses us with respect to its speculative interest.

All the interest of my reason (the speculative as well as the practical) is united in the following three questions:

1. *What can I know?*
2. *What ought I to do?*
3. *What may I hope?*

[523] The first question is merely speculative. We have (as I flatter myself) exhausted all possible answers to it, and have finally found the one with which reason must indeed be satisfied, and with which, so long as it does not look to the practical, it also has cause to be content. Yet we have remained just as far from the two great ends toward which this whole striving of pure reason was properly directed as if, out of love of ease, we had refused this labor from the very beginning. Where knowledge is concerned, then, this much at least is certain and settled: it can never fall to our share with respect to those two problems.

The second question is merely practical. As such it can indeed belong to pure reason; but then it is not transcendental but moral, and so cannot in itself occupy our critique.

The third question—namely, if I do what I ought, what may I then hope?—is practical and theoretical at once, so that the practical serves only as a guiding thread to the answer to the theoretical question and, when that question reaches high, the speculative one. For all *hoping* aims at happiness, and it is to the practical and the moral law exactly what knowing and the law of nature are to the theoretical cognition of things. Hoping ultimately arrives at the inference that something *is* (which determines the ultimate possible end) *because something ought to hap-*

pen; knowing, at the inference that something *is* (which acts as supreme cause) *because something happens*.

Happiness is the satisfaction of all our inclinations (*extensively*, as to their manifoldness; *intensively*, as to degree; and *protensively*, as to duration). The practical law that arises from the motive of *happiness* I call pragmatic (a rule of prudence); but the law, if there is one, that has no other motive than *worthiness to be happy* I call moral (the moral law). The former advises what is to be done if we want to partake of happiness; the latter commands how we ought to behave merely in order to become worthy of happiness. The former is based on empirical principles; for only by means of experience can I know which inclinations there are that want to be satisfied, [524] or which natural causes can bring about their satisfaction. The latter abstracts from inclinations and from natural means of satisfying them, and considers only the freedom of a rational being in general and the necessary conditions under which alone this freedom harmonizes with a distribution of happiness according to principles. It therefore *can* at least rest on mere ideas of pure reason and be cognized *a priori*.

I assume that there really are pure moral laws which determine completely *a priori* (without regard to empirical motives, that is, to happiness) what is to be done and left undone, that is, the use of the freedom of a rational being in general; and that these laws command *absolutely* (not merely hypothetically, on the presupposition of other, empirical ends) and so are necessary in every respect. I may rightly presuppose this proposition, appealing not only to the proofs of the most enlightened moralists but to the moral judgment of every human being who is willing to think such a law distinctly.

Pure reason, then, contains—not indeed in its speculative use, but in a certain practical use, namely the moral one—principles of the *possibility of experience*: namely, of such actions in conformity with moral precepts as *could* be met with in the *history* of humankind. For since reason commands that such actions ought to happen, they must also be able to happen; and so a par-

ticular kind of systematic unity must be possible, namely the moral kind. The systematic unity of nature, by contrast, could not be proved *according to speculative principles of reason*, because reason has causality with respect to freedom in general but not with respect to nature as a whole, and moral principles of reason can indeed produce free actions but not laws of nature. Accordingly, the principles of pure reason have objective reality in its practical use, and specifically in its moral use.

I call the world, insofar as it would be in conformity with all moral laws (as it *can* be by virtue of the *freedom* of rational beings, and *ought* to be according to the necessary laws of *morality*), a *moral world*. To that extent it is thought merely as an intelligible world, because in it we abstract from all conditions (ends) and even from all hindrances to morality within it (the weakness or impurity of [525] human nature). To that extent, then, it is a mere idea, yet a practical one, which really can and ought to have its influence on the sensible world, so as to bring that world into conformity with this idea as far as possible. The idea of a moral world therefore has objective reality—not as if it referred to an object of an intelligible intuition (something we cannot even think), but as referring to the sensible world, taken, however, as an object of pure reason in its practical use, and to a *corpus mysticum* of the rational beings in it, insofar as their free choice, under moral laws, has thoroughgoing systematic unity both with itself and with the freedom of everyone else.[3]

That was the answer to the first of the two questions of pure reason that concerned its practical interest: *Do that through which you become worthy to be happy.* The second now asks: If I conduct myself so as not to be unworthy of happiness, may I also hope to be able to partake of it thereby? In answering it, what matters is whether the principles of pure reason that prescribe the law *a priori* also necessarily connect this hope with it.

I say, accordingly, that just as the moral principles are necessary according to reason in its *practical* use, so it is equally

3 *Corpus mysticum* (Latin): mystical body, the theological term for the church as the body of Christ, here borrowed for the community of rational beings.

necessary, according to reason in its *theoretical* use, to assume that everyone has cause to hope for happiness in the same measure as he has made himself worthy of it in his conduct; and that the system of morality is therefore inseparably bound up with that of happiness, though only in the idea of pure reason.

Now in an intelligible world, that is, the moral world, in whose concept we abstract from all hindrances to morality (the inclinations), such a system of happiness proportioned to and bound up with morality can also be thought as necessary. For freedom, partly moved and partly restricted by moral laws, would itself be the cause of general happiness, and rational beings, under the guidance of such principles, would themselves be the authors of their own lasting welfare and at the same time of that of others. But this system of self-rewarding morality is only an idea, whose realization rests on the condition [526] that *everyone* does what he ought—that is, that all the actions of rational beings happen as if they sprang from a supreme will that comprises all private choice in itself or under itself. But the obligation arising from the moral law remains valid for each person's particular use of freedom even if others do not conduct themselves in conformity with this law. So neither the nature of the things in the world nor the causality of actions themselves and their relation to morality determines how their consequences will stand in relation to happiness. The necessary connection just mentioned—between the hope of being happy and the unremitting endeavor to make oneself worthy of happiness—cannot be cognized through reason if nature alone is taken as the basis. It may only be hoped for if a *highest reason*, which commands according to moral laws, is at the same time taken as the basis, as the cause of nature.

I call the idea of such an intelligence—in which the morally most perfect will, combined with the highest blessedness, is the cause of all happiness in the world, insofar as happiness stands in exact proportion to morality (as worthiness to be happy)—*the ideal of the highest good*. Thus only in the ideal of the highest *original* good can pure reason find the ground of the practically

necessary connection of both elements of the highest derived good, namely of an intelligible, that is, *moral*, world. Now, we must necessarily represent ourselves through reason as belonging to such a world, even though the senses present us with nothing but a world of appearances. We shall therefore have to assume that world as a consequence of our conduct in the sensible world, and, since the sensible world offers us no such connection, as a world that is future for us. God and a future life, therefore, are two presuppositions that, according to the principles of pure reason itself, cannot be separated from the obligation that this same reason imposes on us.

Morality in itself constitutes a system; happiness does not, except insofar as it is distributed in exact accordance with morality. But this is possible only in the intelligible world, under a wise author and ruler. Reason finds itself compelled either to assume such a being, together with life in such a world, which we must regard as a future one, or else to regard the moral laws as empty figments of the brain, since without that presupposition the necessary result that this same [527] reason connects with them would have to fall away. That is also why everyone regards the moral laws as *commands*—which they could not be if they did not connect appropriate consequences with their rule *a priori*, and so carry with them *promises* and *threats*. But this they cannot do unless they lie in a necessary being as the highest good, which alone can make such a purposive unity possible.

Leibniz called the world, insofar as one attends only to the rational beings in it and their connection according to moral laws under the government of the highest good, the *kingdom of grace*, and distinguished it from the *kingdom of nature*, where rational beings stand under moral laws, to be sure, but expect no other results of their conduct than those that follow the course of nature in our sensible world. To see ourselves, then, in the kingdom of grace, where all happiness awaits us except inso-

far as we ourselves limit our share in it through unworthiness to be happy, is a practically necessary idea of reason.[4]

Practical laws, insofar as they also become subjective grounds of actions, that is, subjective principles, are called *maxims*. *Judging* morality as to its purity and its consequences takes place according to *ideas*; *following* its laws, according to *maxims*.

It is necessary that our whole way of life be subordinated to moral maxims. But it is at the same time impossible for this to happen unless reason connects with the moral law, which is a mere idea, an efficient cause that determines for conduct in accordance with that law an outcome exactly corresponding to our highest ends, whether in this life or in another. Without a God, then, and a world not now visible to us but hoped for, the glorious ideas of morality are indeed objects of approval and admiration, but not incentives for resolve and practice. For they do not fulfill the whole end that is natural to every rational being and that is determined *a priori*, and made necessary, by this very same pure reason.

Happiness alone is far from being the complete good for our reason. Reason does not approve of it (however much inclination may wish for it) unless it is united with worthiness to be happy, that is, with moral good conduct. But morality alone, and with it mere *worthiness* to be happy, is also far from being the [528] complete good. To complete the good, whoever has conducted himself so as not to be unworthy of happiness must be able to hope to partake of it. Even reason free from every private purpose cannot judge otherwise, if, without taking any interest of its own into account, it put itself in the place of a being that had to distribute all happiness to others. For in the practical idea the two elements are essentially connected—though in such a way that the moral disposition, as condition, first makes possible a share in happiness, and not, conversely, the prospect of happiness the moral disposition. For in the latter case the disposition would not be moral, and so would also not be worthy of com-

4 Leibniz develops the two kingdoms of nature and grace in his *Monadology* (1714), §§87–90, and *Principles of Nature and Grace* (1714).

plete happiness—which, before reason, recognizes no limitation other than the one that stems from our own immoral conduct.

Happiness, then, in exact proportion to the morality of rational beings, through which they are worthy of it, alone constitutes the highest good of a world into which, according to the precepts of pure but practical reason, we must by all means transpose ourselves. This world, of course, is only an intelligible one, since the sensible world does not promise us, from the nature of things, any such systematic unity of ends. Nor can the reality of this unity be grounded on anything other than the presupposition of a highest original good: a self-sufficient reason, equipped with all the sufficiency of a supreme cause, which according to the most perfect purposiveness grounds, maintains and carries out the universal order of things—an order that in the sensible world is very much hidden from us.

Now this moral theology has the peculiar advantage over speculative theology that it leads inevitably to the concept of a *single*, *all-perfect* and *rational* original being—a concept to which speculative theology does not even *point* us on objective grounds, let alone *convince* us of it. For neither in transcendental nor in natural theology, however far reason may lead us in them, do we find any significant ground for assuming only a single being, one that we would place before all natural causes and on which we would at the same time have sufficient cause to make them dependent in every respect. If, on the other hand, we consider, from the standpoint of moral unity as a necessary law of the world, the cause that alone can give this law its appropriate effect, and hence also its binding force for us, then it must be a single supreme will that comprises all these laws in [529] itself. For how could we find perfect unity of ends among different wills? This will must be omnipotent, so that the whole of nature and its relation to morality in the world are subject to it; omniscient, so that it knows the innermost dispositions and their moral worth; omnipresent, so that it is immediately at hand for every need that the highest good of the world requires;

eternal, so that this harmony of nature and freedom is lacking at no time; and so on.

But this systematic unity of ends in this world of intelligences—which, though as mere nature it can be called only the sensible world, can as a system of freedom be called the intelligible, that is, moral, world (*regnum gratiae*)—inevitably leads also to the purposive unity of all the things that make up this great whole, according to universal laws of nature, just as the former unity accords with universal and necessary moral laws; and it unites practical reason with speculative reason. The world must be represented as having sprung from an idea if it is to harmonize with that use of reason without which we would hold ourselves unworthy of reason—namely the moral use, which rests entirely on the idea of the highest good.[5] Through this, all investigation of nature takes a direction toward the form of a system of ends, and in its widest extension becomes physico-theology. But since physico-theology started from moral order, as a unity grounded in the essence of freedom and not founded contingently by external commands, it traces the purposiveness of nature back to grounds that must be inseparably connected *a priori* with the inner possibility of things. It thereby leads to a *transcendental theology*, one that takes the ideal of highest ontological perfection as a principle of systematic unity—a principle that connects all things according to universal and necessary laws of nature, since they all have their origin in the absolute necessity of a single original being.

What *use* can we make of our understanding, even with respect to experience, if we do not set ourselves ends? But the highest ends are those of morality, and only pure reason can give us cognition of them. Equipped with these, and following their guiding thread, we can make no purposive use of the knowledge of nature itself for cognition unless nature itself has laid down purposive unity; [530] for without that unity we would not even have reason ourselves, since we would have no school for it, and no cultivation through objects that would offer the

5 *Regnum gratiae* (Latin): kingdom of grace.

material for such concepts. But that purposive unity is necessary and grounded in the essence of choice itself. So this unity of nature, which contains the condition of applying the former *in concreto*, must be necessary as well; and thus the transcendental enhancement of our rational cognition would be not the cause but merely the effect of the practical purposiveness that pure reason imposes on us.

Accordingly, we also find in the history of human reason that before moral concepts had been sufficiently purified and determined, and before the systematic unity of ends according to them, and indeed from necessary principles, had been understood, knowledge of nature, and even a considerable degree of cultivation of reason in many other sciences, could produce partly only crude and wandering concepts of the Godhead, and partly left behind an astonishing indifference toward this question altogether. A greater working-out of moral ideas, made necessary by the extremely pure moral law of our religion, sharpened reason's attention to this object through the interest it compelled reason to take in it. And without any contribution from either extended knowledge of nature or correct and reliable transcendental insights (which have been lacking at all times), these moral ideas brought about a concept of the divine being that we now hold to be the correct one—not because speculative reason convinces us of its correctness, but because it harmonizes perfectly with the moral principles of reason. And so in the end it is still always only pure reason—but only in its practical use—that has the merit of connecting with our highest interest a cognition that mere speculation can only fancy but cannot make good, and of thereby making it, not indeed a demonstrated dogma, but still an absolutely necessary presupposition for reason's most essential ends.

But once practical reason has reached this lofty point—namely the concept of a single original being as the highest good—it must by no means presume, as if it had raised itself above all empirical conditions of its application and soared up to an immediate knowledge of new objects, to set out from this

concept [531] and derive the moral laws themselves from it. For it was precisely these laws whose *inner* practical necessity led us to the presupposition of a self-sufficient cause, or of a wise ruler of the world, in order to give those laws effect. Hence we cannot, after this, regard them in turn as contingent and derived from a mere will—especially from a will of which we would have no concept at all if we had not formed it in conformity with those laws. So far as practical reason has the right to lead us, we shall not hold actions to be obligatory because they are God's commands, but regard them as divine commands because we are inwardly obligated to them. We shall study freedom under the purposive unity according to principles of reason, and shall believe ourselves to be in conformity with the divine will only insofar as we hold sacred the moral law that reason teaches us from the nature of actions themselves; and we shall believe that we serve that will only by promoting the highest good of the world in ourselves and in others. Moral theology, therefore, is only of immanent use: namely, for fulfilling our vocation here in the world by fitting into the system of all ends—not for fanatically, or even blasphemously, abandoning the guiding thread of a morally legislating reason in the conduct of a good life in order to tie that thread directly to the idea of the highest being. That would yield a transcendent use, which, just like the use of mere speculation, must pervert and frustrate the ultimate ends of reason.

SECTION 3. OPINION, KNOWLEDGE AND BELIEF

Kant distinguishes three degrees of assent and argues that moral belief in God and a future life is unshakable.

Assent is an event in our understanding that may rest on objective grounds but also requires subjective causes in the mind of the one who judges. If it is valid for everyone, provided only that he has reason, then its ground is objectively sufficient, and the

assent is then called *conviction*. [532] If it has its ground only in the particular constitution of the subject, it is called *persuasion*.[6]

Persuasion is a mere illusion, because the ground of the judgment, which lies solely in the subject, is taken to be objective. Hence such a judgment also has only private validity, and the assent cannot be communicated. Truth, however, rests on agreement with the object, with respect to which the judgments of every understanding must consequently agree with one another (*consentientia uni tertio consentiunt inter se*).[7] The touchstone of assent, as to whether it is conviction or mere persuasion, is therefore, externally, the possibility of communicating it and of finding it valid for every human being's reason. For then there is at least a presumption that the ground of the agreement of all judgments, despite the differences among the subjects, rests on a common ground, namely the object; with this object they will therefore all agree, and will thereby prove the truth of the judgment.

Subjectively, then, persuasion cannot be distinguished from conviction so long as the subject has the assent before his eyes merely as an appearance in his own mind. But the experiment of testing the grounds of it that are valid for us on the understanding of others—to see whether they have the same effect on another's reason as on our own—is a means, though only a subjective one: not indeed of producing conviction, but of uncovering the merely private validity of the judgment, that is, whatever in it is mere persuasion.

If, in addition, we can lay out the subjective *causes* of the judgment, which we take for objective *grounds* of it, and so explain the deceptive assent as an event in our mind without needing the constitution of the object for this, then we expose the illusion and are no longer deceived by it—though we are still temp-

6 "Assent" renders *Fürwahrhalten*, literally "holding to be true": Kant's general term covering opinion, belief and knowledge alike.

7 *Consentientia uni tertio consentiunt inter se* (Latin): things that agree with one and the same third thing agree with each other.

ted by it to a certain degree, if the subjective cause of the illusion is bound up with our nature.

I can *assert*—that is, pronounce as a judgment necessarily valid for everyone—only what produces conviction. Persuasion I can keep for myself, if I am comfortable with it; but I cannot, and ought not to, try to make it count outside myself.

Assent, or the subjective validity of a judgment, in relation to conviction (which is at the same time objectively valid) has the following [533] three stages: *opining*, *believing* and *knowing*. *Opining* is assent that is consciously insufficient *both* subjectively *and* objectively. If assent is sufficient only subjectively and is at the same time held to be objectively insufficient, it is called *believing*. Finally, assent that is sufficient both subjectively and objectively is called *knowing*. Subjective sufficiency is called *conviction* (for myself); objective sufficiency, *certainty* (for everyone). I shall not dwell on explaining such readily grasped concepts.[8]

I must never presume to *opine* without at least *knowing* something by means of which the judgment, in itself merely problematic, acquires a connection with truth—a connection that, though not complete, is still more than arbitrary fiction. Moreover, the law of such a connection must be certain. For if with respect to this too I have nothing but opinion, then everything is merely a play of the imagination without the slightest relation to truth. In judgments from pure reason it is not permitted to *opine* at all. For since such judgments are not supported on grounds of experience, but everything is to be cognized *a priori*, where everything is necessary, the principle of connection requires universality and necessity, and hence complete certainty; otherwise no guidance toward truth is to be found at all. Hence it is absurd to opine in pure mathematics: one must know, or else refrain from all judging. It is the same with the principles of morality, since one may not venture an

8 *Glauben* means both "belief" and "faith" (our *Critique of Practical Reason* says "faith"); in this section's triad of opinion, knowledge and belief it is rendered "belief" throughout.

action on the mere opinion that something is *permitted*, but must know this.

In the transcendental use of reason, on the other hand, opining is of course too little, but knowing is also too much. With a merely speculative aim, therefore, we cannot judge here at all. For subjective grounds of assent, such as those that can produce believing, deserve no assent in speculative questions, since they do not hold up when freed from all empirical assistance, nor can they be communicated to others in equal measure.

But it is only ever in a *practical respect* that theoretically insufficient assent can be called believing. This practical aim is either that of *skill* or that of *morality*: the first for arbitrary and contingent ends, the second for absolutely necessary ones.

Once an end has been set, the conditions for attaining it are hypothetically necessary. This necessity is [534] subjectively, but still only comparatively, sufficient if I know of no other conditions at all under which the end could be attained; but it is sufficient absolutely and for everyone if I know for certain that no one could know of other conditions leading to the end in question. In the first case my presupposition, my holding certain conditions to be true, is a merely contingent belief; in the second case, however, it is a necessary belief. A doctor must do something for a patient who is in danger, but does not know the illness. He looks at the symptoms and judges, because he knows of nothing better, that it is consumption.[9] His belief is merely contingent even in his own judgment; someone else might perhaps hit on something better. Such contingent belief, which nonetheless underlies the actual use of means to certain actions, I call *pragmatic belief*.

The usual touchstone of whether what someone asserts is mere persuasion, or at least subjective conviction, that is, firm believing, is *betting*. Often someone pronounces his propositions with such confident and intractable defiance that he seems to have entirely laid aside all concern about error. A bet makes him stop short. Sometimes it turns out that he has persuasion

9 Consumption: pulmonary tuberculosis.

enough to be valued at one ducat, but not at ten. For he will still readily risk the first, but at ten he first becomes aware of what he had not noticed before: namely, that it is quite possible after all that he has been mistaken.[10] If we imagine that we are to bet the happiness of our whole life on something, our triumphant judgment shrinks away considerably; we become exceedingly timid and discover only then that our belief does not reach so far. Thus pragmatic belief has only a degree, which can be large or small according to the difference of the interest at stake.

Even where we cannot undertake anything at all in relation to an object, so that our assent is merely theoretical, we can still in many cases conceive of an undertaking in thought and imagine one for which we suppose we would have sufficient grounds, if there were a means of settling the certainty of the matter. There is therefore, in merely theoretical judgments, an *analogue* of *practical* ones: an assent to which the word *belief* is fitting, and which we can call *doctrinal belief*. If it were possible to settle it through any experience, I might well bet everything I have [535] that at least one of the planets we see has inhabitants. Hence I say it is not merely opinion but a strong belief (on whose correctness I would already stake many advantages in life) that there are inhabitants of other worlds as well.

Now we must admit that the doctrine of the existence of God belongs to doctrinal belief. For with regard to theoretical knowledge of the world I have nothing at my *disposal* that necessarily presupposes this thought as the condition of my explanations of the appearances of the world. On the contrary, I am obliged to use my reason as if everything were merely nature. Yet purposive unity is so important a condition of applying reason to nature that I cannot pass it by at all, especially since experience also offers me abundant examples of it. But I know of no other condition for this unity that could make it a guide for me in investigating nature than the presupposition that a highest intelligence has ordered everything in this way according to the wisest ends. Consequently, to presuppose a wise author of the

10 Ducat: a gold coin in wide use in Kant's day.

world is a condition of an aim that is admittedly contingent but by no means insignificant, namely that of having some guidance in the investigation of nature.

The outcome of my inquiries, moreover, so often confirms the usefulness of this presupposition, and nothing decisive can be adduced against it, that I would be saying much too little if I called my assent a mere opinion. Rather, even in this theoretical relation it can be said that I firmly believe in a God. But in that case this belief is still, in the strict sense, not practical; it must be called a doctrinal belief, which the *theology* of nature (physico-theology) must necessarily produce everywhere. With regard to this same wisdom, and in view of the splendid endowment of human nature and the shortness of life, so poorly suited to it, sufficient ground can just as well be found for a doctrinal belief in the future life of the human soul.

In such cases the expression of belief is an expression of modesty from an *objective* point of view, yet at the same time of firm confidence from a *subjective* one. If I wanted to call this merely theoretical assent even just a hypothesis that I was entitled to adopt, I would thereby already be pledging myself to have more of a concept of the constitution of a cause of the world and of another world than I can actually [536] show. For of whatever I adopt even merely as a hypothesis, I must know at least enough of its properties that I need to invent *not its concept* but *only its existence*. The word belief, however, concerns only the guidance that an idea gives me, and the subjective influence on the furthering of the actions of my reason that holds me fast to it, even though I am not in a position to give an account of it from a speculative point of view.

But merely doctrinal belief has something unsteady about it. One is often dislodged from it by difficulties that turn up in speculation, although one inevitably returns to it again and again.

It is quite different with *moral belief*. For there it is absolutely necessary that something must happen, namely that I obey the moral law in every respect. Here the end is inescapably fixed, and as far as I can see there is only one condition under which

this end hangs together with all ends as a whole and thereby has practical validity: namely, that there is a God and a future world. I also know with complete certainty that no one knows of other conditions leading to the same unity of ends under the moral law. But since the moral precept is thus at the same time my maxim (as reason commands that it should be), I will inevitably believe in the existence of God and a future life. And I am sure that nothing can make this belief unsteady, since that would overturn my moral principles themselves, which I cannot renounce without being contemptible in my own eyes.

In this way, after the frustration of all the ambitious aims

of a reason that roams beyond the boundaries of all experience, enough still remains to us that we have cause to be satisfied with it from a practical point of view. No one, admittedly, will be able to boast that he *knows* that there is a God and a future life. For if he knows that, he is exactly the man I have long been looking for. All knowledge (if it concerns an object of mere reason) can be communicated, and so I too could hope to see my knowledge extended to such an admirable degree by his instruction. No: the conviction is not *logical* but *moral* certainty. And since it rests on subjective grounds (the moral disposition), [537] I must not even say, "*It is* morally certain that there is a God," and so on, but rather, "*I am* morally certain," and so on. That is, belief in a God and another world is so interwoven with my moral disposition that I am as little afraid of ever being robbed of the former as I am in danger of losing the latter.

The only questionable point here is that this rational belief is founded on the presupposition of moral dispositions. If we set that aside and take someone who is entirely indifferent to moral laws, then the question that reason raises becomes merely a problem for speculation. It can then still be supported by strong grounds from analogy, but not by grounds to which the most

stubborn skepticism would have to yield.[11] Yet no human being is free of all interest in these questions. For even if he were cut off from moral interest by his lack of good dispositions, enough remains even in this case to make him *fear* a divine existence and a future. For this nothing more is required than that he at least cannot plead any *certainty* that there is *no* such being and *no* future life. Since that would have to be proved through mere reason, and hence apodictically, he would have to demonstrate the impossibility of both, which certainly no reasonable person can undertake. This would be a *negative* belief. It could not produce morality and good dispositions, but it could produce their analogue, namely it could powerfully restrain the outbreak of bad ones.

"But is that all," it will be said, "that pure reason achieves in opening up prospects beyond the boundaries of experience? Nothing more than two articles of belief? Surely common 538 understanding could have achieved as much without consulting the philosophers about it!"

I will not here praise the service that philosophy has rendered to human reason through the laborious effort of its critique, even supposing that in the end this should be found to be merely negative; for something more will be said of this in the following section. But do you really demand that a cognition that concerns all human beings should surpass common understanding and be revealed to you only by philosophers? The very thing you find fault with is the best confirmation of the correctness of the assertions made so far. For it reveals what could not have been foreseen at the start: namely, that in what concerns all human beings without distinction, nature is not to be accused of any partiality in distributing its gifts, and that with respect to the essential ends of human nature the highest philo-

11 KANT'S NOTE. The human mind takes (as I believe necessarily happens in every rational being) a natural interest in morality, even though this interest is not undivided and practically predominant. Strengthen and enlarge this interest, and you will find reason very teachable, and even more enlightened, for uniting the speculative interest with the practical. But if you do not take care first to make people good, at least halfway, you will never make sincere believers of them either.

sophy can advance no further than the guidance that nature has granted even to the most common understanding.

CHAPTER 3. THE ARCHITECTONIC OF PURE REASON

Philosophy as a system under one idea: its cosmic concept, and the division of metaphysics.

By an *architectonic* I understand the art of systems. Systematic unity is what first turns common cognition into science, that is, makes a system out of a mere aggregate of it. Architectonic is therefore the doctrine of what is scientific in our cognition in general, and so it necessarily belongs to the doctrine of method.

Under the government of reason our cognitions must not form a rhapsody at all, but must constitute a system; only in a system can they support and further reason's essential ends. By a system, however, I understand the unity of manifold cognitions under one idea. This idea is reason's concept of the form of a whole, insofar as through this concept both the scope of the manifold and the position of the parts relative to one another are determined *a priori*. [539] The scientific concept of reason thus contains the end and the form of the whole that is congruent with it. The unity of the end, to which all the parts are related, and in the idea of which they are also related to one another, means that the absence of any part can be noticed from knowledge of the rest, and that there is no contingent addition, nor any indeterminate magnitude of perfection that lacks its boundaries determined *a priori*. The whole is therefore articulated (*articulatio*), not heaped together (*coacervatio*). It can indeed grow internally (*per intussusceptionem*), but not externally (*per appositionem*), like an animal body, whose growth adds no limb but, without altering the proportions, makes each limb stronger and better fitted for its ends.[12]

For its execution the idea needs a *schema*, that is, an essential manifold and order of the parts determined *a priori* from the

principle of the end. A schema that is sketched not according to an idea, that is, not from reason's chief end, but empirically, according to aims that happen to present themselves (whose number cannot be known in advance), yields *technical* unity. But a schema that arises only in consequence of an idea (where reason sets the ends *a priori* and does not wait for them empirically) grounds *architectonic* unity. What we call science can arise not technically, on account of the similarity of the manifold or the contingent use of cognition *in concreto* for all sorts of arbitrary external ends, but architectonically, for the sake of affinity and derivation from a single supreme and inner end, which first makes the whole possible. The schema of such a science must contain the outline (*monogramma*) and the division of the whole into members in conformity with the idea, that is, *a priori*, and must distinguish it securely and according to principles from all others.[13]

No one attempts to establish a science without having an idea as its foundation. But in working it out, the schema, and even the definition he gives of his science right at the start, very seldom corresponds to his idea. For the idea lies in reason like a germ, in which all the parts are still very much enfolded and hidden, barely recognizable even under microscopic observation. For this reason sciences, since they are all devised from the standpoint of a certain general interest, must be explained and determined not according to the description their founder gives of them, but according to the idea that one finds grounded in reason itself from the natural unity of the parts [540] he has brought together. For it will then be found that the founder, and often even his latest successors, stray around an idea that they have not been able to make clear even to themselves, and that they therefore cannot determine the proper content, the articulation (systematic unity) and the boundaries of the science.

12 Latin: *articulatio*, "jointed structure"; *coacervatio*, "heaping up"; *per intussusceptionem*, "by taking in" (growth from within); *per appositionem*, "by adding on" (growth from outside).

13 *Monogramma* (Latin, from Greek): an outline sketch.

It is a pity that only after we have long collected many cognitions relating to an idea hidden within us, rhapsodically, as building materials, following its direction, and indeed only after we have for long ages put them together technically, does it first become possible for us to see the idea in a clearer light and to sketch a whole architectonically according to the ends of reason. Systems seem to have been formed like worms, through a *generatio aequivoca* from the mere confluence of collected concepts, at first mutilated, in time complete. Yet they all had their schema, as the original germ, in reason, which merely unfolds itself. Hence not only is each of them articulated for itself according to an idea, but, beyond that, all of them are in turn purposively united with one another as members of one whole in a system of human cognition. They thus permit an architectonic of all human knowledge, which at present, when so much material has already been collected or can be taken from the ruins of collapsed old buildings, would be not only possible but not even so very difficult.[14] Here we content ourselves with completing our own task, namely merely to sketch the *architectonic* of all cognition from *pure reason*. And we begin only from the point where the general root of our cognitive power divides and throws out two stems, one of which is *reason*. By reason, however, I here understand the whole higher cognitive faculty, and I therefore oppose the rational to the empirical.

If I abstract from all content of cognition, considered objectively, then all cognition, considered subjectively, is either historical or rational. Historical cognition is *cognitio ex datis* [cognition from what is given], rational cognition *cognitio ex principiis* [cognition from principles]. Wherever a cognition may originally have been given, it is still historical in the person who possesses it if he cognizes only to the degree and as much as has been given to him from elsewhere, whether through immediate experience or through narration, or also through instruction (of

14 *Generatio aequivoca* (Latin): "equivocal generation," i.e., spontaneous generation of living things from nonliving matter, then commonly supposed for worms and similar creatures.

general cognitions). Hence someone who [541] has actually *learned* a system of philosophy, for example the *Wolffian* one, has nothing but complete *historical* cognition of the Wolffian philosophy, even if he had all its principles, explanations and proofs in his head, together with the division of the whole doctrinal edifice, and could count everything off on his fingers. He knows and judges only as much as was given to him. Dispute a definition with him, and he does not know where to get another. He formed himself on another's reason, but the imitative faculty is not the productive one; that is, the cognition did not arise in him *from* reason. And although objectively it was certainly a cognition of reason, subjectively it is merely historical. He has grasped and retained well, that is, he has learned, and he is a plaster cast of a living human being. Cognitions of reason that are so objectively (that is, that can originally arise only from a person's own reason) may bear this name subjectively as well only when they have been drawn from universal sources of reason, that is, from principles, from which criticism, and even the rejection of what has been learned, can also arise.

Now all cognition of reason is either cognition from concepts or cognition from the construction of concepts. The former is called philosophical, the latter mathematical. I have already dealt with the inner difference between the two in the first chapter. Accordingly, a cognition can be objectively philosophical and yet subjectively historical, as it is with most apprentices, and with all who never look beyond their school and remain apprentices all their lives. But it is strange that mathematical cognition, just as one has learned it, can still count subjectively as cognition of reason too, and that the difference found in philosophical cognition does not occur in it.[15] The reason is that the sources of cognition from which alone the teacher can draw lie nowhere but in the essential and genuine principles of reason, and hence the apprentice can take them

15 The first chapter of the Transcendental Doctrine of Method, "The Discipline of Pure Reason," whose first section contrasts philosophical and mathematical method.

from nowhere else, nor can they be disputed. And this is so because the use of reason here takes place only *in concreto*, though still *a priori*, namely in pure and for that very reason error-free intuition, and excludes all deception and error. Among all the sciences of reason (*a priori*), therefore, one can learn only mathematics, never philosophy [542] (except historically); as far as reason is concerned, one can at most learn to *philosophize*.

The system of all philosophical cognition is simply *philosophy*. We must take it objectively if we understand by it the archetype for appraising all attempts at philosophizing, which is to serve for appraising every subjective philosophy, whose edifice is often so various and so changeable. Taken in this way, philosophy is a mere idea of a possible science that is nowhere given *in concreto*, but which we try to approach by various paths, until the one footpath, much overgrown by sensibility, is discovered, and we succeed, so far as is granted to human beings, in making the hitherto failed copy like the archetype. Until then we cannot learn any philosophy. For where is it, who possesses it, and by what can it be recognized? We can only learn to philosophize, that is, to exercise the talent of reason in following its universal principles on certain existing attempts, but always reserving reason's right to investigate those principles themselves at their sources, and to confirm or reject them.

Until then, however, the concept of philosophy is only a *scholastic concept*, namely the concept of a system of cognition that is sought only as a science, without having as its end anything more than the systematic unity of this knowledge, and hence the *logical* perfection of cognition. But there is also a *cosmic concept* (*conceptus cosmicus*) that has always underlain this term, especially when it was, so to speak, personified and represented as an archetype in the ideal of the *philosopher*. In this sense philosophy is the science of the relation of all cognition to the essential ends of human reason (*teleologia rationis humanae* [the teleology of human reason]), and the philosopher is not an artist

of reason but the lawgiver of human reason.[16] In this sense it would be very boastful to call oneself a philosopher and to presume to have equaled the archetype, which lies only in the idea.

The mathematician, the natural scientist and the logician, however excellent the progress the first may make in cognition of reason generally and the second two in philosophical cognition in particular, are still only artists of reason. There is yet a teacher in the ideal, who sets all these to work and uses them as tools to further the essential ends of human [543] reason. Him alone we would have to call the philosopher. But since he himself is found nowhere, while the idea of his legislation is found everywhere in every human reason, we will keep solely to the latter and determine more closely what systematic unity philosophy, according to this cosmic concept,[17] prescribes from the standpoint of ends.

Essential ends are not yet on that account the highest ends, of which (given complete systematic unity of reason) there can be only one. They are therefore either the final end or subordinate ends that belong necessarily to the final end as means. The former is none other than the whole vocation of human beings, and the philosophy concerned with it is called moral philosophy. Because of this precedence that moral philosophy has over every other pursuit of reason, the ancients too always meant by the name "philosopher" at the same time, and above all, the moralist. And even now the outward appearance of self-control through reason leads people to call someone a philosopher, by a certain analogy, despite his limited knowledge.

Now the legislation of human reason (philosophy) has two objects, nature and freedom, and therefore contains both the natural law and the moral law, at first in two separate systems

16 *Weltbegriff* (*conceptus cosmicus*): literally "world-concept," philosophy as it concerns everyone, as opposed to the *Schulbegriff*, philosophy as an academic discipline; see Kant's footnote below.

17 KANT'S NOTE. A *cosmic concept* here means one that concerns what necessarily interests everyone. Accordingly I determine the aim of a science according to *scholastic concepts* if it is regarded merely as one of the skills for certain arbitrary ends.

but ultimately in a single philosophical system. The philosophy of nature concerns everything that *is*; the philosophy of morals only what *ought to be*.

But all philosophy is either cognition from pure reason or cognition of reason from empirical principles. The former is called pure, the latter empirical philosophy.

Now the philosophy of pure reason is either *propaedeutic* (preparatory exercise), which investigates the faculty of reason with regard to all pure *a priori* cognition, and is called *critique*; or, second, the system of pure reason (science), the whole (true as well as [544] apparent) philosophical cognition from pure reason in systematic interconnection, and is called *metaphysics*. This name, however, can also be given to the whole of pure philosophy including critique, so as to comprise both the investigation of everything that can ever be cognized *a priori* and the presentation of what constitutes a system of pure philosophical cognitions of this kind, as distinguished from all empirical use of reason and likewise from its mathematical use.

Metaphysics is divided into the metaphysics of the *speculative* and of the *practical* use of pure reason, and is therefore either *metaphysics of nature* or *metaphysics of morals*. The former contains all the pure principles of reason from mere concepts (hence excluding mathematics) concerning the *theoretical* cognition of all things; the latter, the principles that determine *a priori* and make necessary what we *do and refrain from doing*. Now morality is the only lawfulness of actions that can be derived completely *a priori* from principles. Hence the metaphysics of morals is properly pure moral philosophy, which is not grounded on any anthropology (any empirical condition). Now the metaphysics of speculative reason is what is customarily called metaphysics in the *narrower sense*. But insofar as pure moral doctrine nevertheless belongs to the particular stem of human, and indeed philosophical, cognition from pure reason, we will retain that name for it too, although we set it aside here as not belonging to our purpose *now*.

It is of the utmost importance to *isolate* cognitions that differ from others in their kind and origin, and to take careful precautions lest they flow together into a mixture with others with which they are usually combined in use. What chemists do in separating substances, and mathematicians in their pure doctrine of magnitude, is even more incumbent on the philosopher, so that he can securely determine the share that a particular kind of cognition has in the wandering use of the understanding, and its own proper worth and influence. Hence human reason, ever since it began to think, or rather to reflect, has never been able to do without a metaphysics, and yet it has never been able to present one sufficiently purified of everything foreign to it. The idea of such a science is as old as speculative human reason; and what reason does not speculate, whether [545] in scholastic or in popular fashion? It must be admitted, however, that the distinction between the two elements of our cognition, the one completely in our power *a priori*, the other obtainable only *a posteriori* from experience, remained very indistinct even among professional thinkers. Hence it could never achieve the determination of the boundaries of a particular kind of cognition, and so could not achieve the genuine idea of a science that has occupied human reason so long and so much. When it was said that metaphysics is the science of the first principles of human cognition, this did not mark out a quite special kind, but only a rank with respect to generality, by which metaphysics could not be clearly distinguished from the empirical. For among empirical principles too some are more general, and therefore higher, than others. And in the series of such a subordination (where what is cognized completely *a priori* is not distinguished from what is cognized only *a posteriori*), where is one to make the cut that separates the *first* part and the highest members from the *last* part and the subordinate members? What would one say if chronology could designate the epochs of the world only by dividing them into the first centuries and those following them? One would ask: does the fifth century belong to the first ones too, and the tenth, and so

on? In the same way I ask: does the concept of the extended belong to metaphysics? You answer: yes! Well then, the concept of body too? Yes! And that of a fluid body? You are taken aback, for if it goes on like this, everything will belong to metaphysics. From this one sees that the mere degree of subordination (of the particular under the universal) cannot determine the boundaries of a science; in our case only the complete heterogeneity and difference of origin can do so. But what obscured the fundamental idea of metaphysics from yet another side was that, as *a priori* cognition, it shows a certain homogeneity with mathematics. As far as *a priori* origin is concerned, this homogeneity makes them related to each other. But when it comes to the kind of cognition, from concepts in the case of metaphysics, compared with judging *a priori* merely through the construction of concepts in the case of mathematics, and hence to the difference between philosophical and mathematical cognition, there appears so decided a heterogeneity that, though people always felt it, so to speak, they could never bring it under distinct criteria. The result has been that, since philosophers [546] themselves failed in developing the idea of their science, the working out of that science could have no determinate end and no secure guideline. With a plan made so arbitrarily, ignorant of the path they ought to take, and always quarreling among themselves over the discoveries each claimed to have made on his own path, they brought their science into contempt, first among others and finally even among themselves.

All pure *a priori* cognition, therefore, by virtue of the particular cognitive faculty in which alone it can have its seat, constitutes a particular unity, and metaphysics is the philosophy that is to present that cognition in this systematic unity. Its speculative part, which has especially appropriated this name, namely what we call *metaphysics of nature*, and which considers everything insofar as it *is* (not what ought to be) from *a priori* concepts, is now divided in the following way.

THE DIVISION OF METAPHYSICS

Kant divides metaphysics into ontology, rational physiology, rational cosmology and rational theology.

Metaphysics, so called in the narrower sense, consists of *transcendental philosophy* and the *physiology* of pure reason. The former considers only the *understanding* and reason themselves, in a system of all concepts and principles that relate to objects in general, without assuming objects that *would be given* (*Ontologia* [ontology]). The latter considers *nature*, that is, the sum total of *given* objects (whether given to the senses or, if one likes, to some other kind of intuition), and is therefore *physiology* (though only *rationalis* [rational]). Now the use of reason in this rational consideration of nature is either physical or hyperphysical, or better, either *immanent* or *transcendent*.[18] The former concerns nature insofar as its cognition can be applied in experience (*in concreto*); the latter concerns that connection of the objects of experience that surpasses all experience. This *transcendent* physiology therefore has as its object either an *inner* or an *outer* connection, both of which, however, go beyond possible experience. The former is the physiology of nature as a whole, that is, *transcendental cognition of the world*; the latter is the physiology of the connection of nature as a whole with a being above nature, that is, transcendental *cognition of God*.

Immanent physiology, by contrast, considers nature as the sum total of all objects of the senses, hence as it is given *to us*, but [547] only according to the *a priori* conditions under which it can be given to us at all. There are, however, only two kinds of objects of immanent physiology. 1. Those of the outer senses, and hence their sum total, *corporeal nature*. 2. The object of inner sense, the soul, and, according to the fundamental concepts of the soul in general, *thinking nature*. The metaphysics of corporeal nature is called *physics*, but, since it is to contain only the

18 "Physiology" here in its older, literal sense: the doctrine of nature (Greek *physis*), not the biological science.

principles of its *a priori* cognition, *rational physics*. The metaphysics of thinking nature is called *psychology*, and for the reason just given only the *rational cognition* of it is meant here.

Accordingly, the whole system of metaphysics consists of four main parts: 1. *Ontology*. 2. *Rational physiology*. 3. *Rational cosmology*. 4. *Rational theology*. The second part, namely the doctrine of nature of pure reason, contains two divisions, *physica rationalis* [19] and *psychologia rationalis* [rational physics and rational psychology].

The original idea of a philosophy of pure reason itself prescribes this division. It is therefore *architectonic*, in conformity with reason's essential ends, and not merely *technical*, made according to affinities perceived by chance and, as it were, at random; and for that very reason it is also unchangeable and legislative. But there are some points here that could arouse misgivings and weaken our conviction of its lawfulness.

First: how can I expect an *a priori* cognition, and hence metaphysics, of objects insofar as they are given to our senses, and hence *a posteriori*? And how is it possible to cognize the nature of things according to *a priori* principles and to arrive at a *rational* physiology? The answer is: we take nothing more from experience [548] than what is necessary to give us an object, partly of outer sense, partly of inner sense. The former happens through the mere concept of matter (impenetrable, lifeless extension), the latter through the concept of a thinking being (in the empirical inner representation, "I think"). For the rest, in the entire metaphysics of these objects we would have to abstain wholly from all empirical principles that might add some fur-

19 KANT'S NOTE. Let no one think that by this I mean what is commonly called *physica generalis* [general physics], which is more mathematics than philosophy of nature. For the metaphysics of nature separates itself entirely from mathematics. It has nowhere near as many expanding insights to offer as mathematics does, but it is nevertheless very important with regard to the critique of pure cognition of the understanding in general as applied to nature. For lack of such a critique even mathematicians, clinging to certain common concepts that are in fact metaphysical, have unwittingly burdened natural science with hypotheses. These vanish under a critique of such principles, without thereby in the least impairing the use of mathematics in this field (which is quite indispensable).

ther experience to the concept in order to judge something about these objects from it.

Second: what becomes, then, of *empirical psychology*, which has always claimed its place in metaphysics, and from which such great things have been expected in our time for the elucidation of metaphysics, after people gave up hope of accomplishing anything worthwhile *a priori*? I answer: it belongs where the proper (empirical) doctrine of nature must be placed, namely on the side of *applied* philosophy. Pure philosophy contains the *a priori* principles for applied philosophy, which must therefore be combined with pure philosophy but not mixed with it. Empirical psychology must therefore be entirely banished from metaphysics, and is already wholly excluded from it by the very idea of metaphysics. Nevertheless, in keeping with academic custom, one will still have to allow it a little place there (though only as an episode), and for economic reasons at that: it is not yet rich enough to constitute a subject of study on its own, and yet too important to be expelled entirely or attached somewhere else, where it would find even less affinity than in metaphysics. It is thus merely a stranger who has been taken in for a long time, and is granted lodging for a while, until it can move into a home of its own in a detailed anthropology (the counterpart to the empirical doctrine of nature).

This, then, is the general idea of metaphysics. Since at first more was expected of it than can reasonably be demanded, and people for a time delighted themselves with pleasant expectations, it has in the end fallen into general contempt, when they found themselves deceived in their hopes. From the whole course of our critique the reader will have become sufficiently convinced that even if metaphysics cannot be the foundation of religion, it must nevertheless always remain [549] its bulwark. And he will be convinced that human reason, which is already dialectical by the bent of its nature, can never do without such a science, which curbs it and, through a scientific and fully evident self-knowledge, prevents the devastation that a lawless speculative reason would otherwise quite infallibly cause in moral-

ity as well as in religion. One can therefore be sure that, however coy or disdainful those may act who know how to judge a science not by its nature but only by its contingent effects, we will always return to metaphysics as to a beloved with whom we have quarreled. For reason, since essential ends are at stake here, must work tirelessly either toward thorough insight or toward the destruction of good insights already at hand.

Metaphysics, then, of nature as well as of morals, and above all the critique of reason that ventures out on its own wings, which goes before as a *preparatory exercise* (propaedeutically), alone constitute what we can call philosophy in the genuine sense. Philosophy relates everything to wisdom, but by way of science, the only way which, once it has been cleared, never becomes overgrown and permits no wandering astray. Mathematics, natural science, even the empirical knowledge of human beings, have a high value as means, for the most part to contingent ends of humanity, but in the end to necessary and essential ones. Yet they have this value only through the mediation of a cognition of reason from mere concepts, which, call it what you will, is really nothing but metaphysics.

For that very reason metaphysics is also the completion of all *culture* of human reason, and it is indispensable even if one sets aside its influence, as science, on certain determinate ends. For it considers reason according to its elements and highest maxims, which must lie at the basis of the *possibility* of some sciences and of the *use* of all. That, as mere speculation, it serves more to prevent errors than to extend cognition does no harm to its worth. On the contrary, it gives it dignity and authority through the office of censor, which secures the general order and harmony, indeed the well-being, of the scientific commonwealth, and prevents its bold and fruitful labors from straying from the chief end, universal happiness.

CHAPTER 4. THE HISTORY OF PURE REASON

A brief survey of philosophers divided by object, origin and method, ending with the critical path.

[550] This title stands here only to mark a place that remains open in the system and must be filled in the future. I content myself with casting a cursory glance, from a merely transcendental point of view, namely that of the nature of pure reason, over the whole of the work done on it so far, which, to be sure, presents buildings to my eye, but only in ruins.

It is remarkable enough, though naturally it could not have happened

otherwise, that in the infancy of philosophy human beings began where we would now rather end: namely, by studying first the cognition of God and the hope of another world, or even its constitution. Whatever crude religious concepts the old customs, left over from the primitive condition of peoples, may have introduced, this did not prevent the more enlightened part from devoting themselves to free inquiries about this object. And they readily saw that there could be no more thorough and reliable way of pleasing the invisible power that governs the world, so as at least to be happy in another world, than a good way of life. Hence theology and morals were the two incentives, or better, the reference points, for all the abstract inquiries of reason to which people have devoted themselves ever since. It was theology, however, that really drew merely speculative reason step by step into the business that later became so famous under the name of metaphysics.

I will not now distinguish the times in which this or that alteration of metaphysics occurred, but will only present, in a cursory sketch, the difference in the idea that occasioned the principal revolutions. And here I find a threefold aim in which the most notable alterations on this stage of conflict were brought about.

1. *With regard to the object* of all our cognitions of reason, some were merely *sensual philosophers*, others merely *intellectual philosophers*. [551] *Epicurus* can be called the foremost philosopher of sensibility, *Plato* of the intellectual. This distinction between the schools, however subtle it is, had already begun in the earliest times and long persisted without interruption. Those of the former school asserted that reality lies in the objects of the senses alone, and that everything else is imagination. Those of the latter said, on the contrary, that in the senses there is nothing but illusion, and only the understanding cognizes what is true. Yet the former did not for that reason deny reality to the concepts of the understanding; but for them it was only *logical*, while for the others it was *mystical*. The former admitted *intellectual concepts*, but assumed only sensible *objects*. The latter demanded that the true objects be merely *intelligible*, and asserted an *intuition* by means of the pure understanding, unaccompanied by any senses, which in their opinion only confuse it.

2. *With regard to the origin* of pure cognitions of reason: whether they are derived from experience, or have their source in reason independently of it. *Aristotle* can be regarded as the head of the *empiricists*, *Plato* of the *noologists*. *Locke*, who in modern times followed the former, and *Leibniz*, who followed the latter (though at a sufficient distance from his mystical system), have nevertheless not been able to bring this dispute to any decision.[20] At least Epicurus for his part proceeded far more consistently according to his sensual system (for in his inferences he never went beyond the boundary of experience) than Aristotle and Locke, especially the latter. Locke, after deriving all concepts and principles from experience, goes so far in using them as to assert that the existence of God and the immortality of the soul (though both objects lie wholly outside the boundaries of possible experience) can be proved just as evidently as any mathematical theorem.[21]

3. *With regard to method.* If anything is to be called a method, it must be a procedure according to *principles*. Now the method

20 "Noologists": from Greek *nous*, intellect.

currently prevailing in this field of inquiry can be divided into the *naturalistic* and the *scientific*. The *naturalist* of pure reason adopts as his principle that with regard to the most sublime questions, which make up the task of metaphysics, more can be accomplished through common reason without science (which he calls sound reason) than through speculation. He asserts, then, [552] that one can determine the size and distance of the moon more reliably by eye than by mathematical detours. This is mere misology brought under principles, and, what is most absurd, the neglect of all artificial means is praised as a *method of its own* for extending one's cognition.[22] For as regards those who are naturalists from *lack* of greater insight, one cannot with justice reproach them for anything. They follow common reason without boasting of their ignorance as a method that is supposed to contain the secret of fetching truth up from Democritus's deep well. *Quod sapio, satis est mihi; non ego curo esse quod Arcesilas aerumnosique Solones* [What I know is enough for me; I do not care to be what Arcesilaus was, and the careworn Solons], Persius, is their motto. With it they can live contentedly and commendably, without troubling themselves about science or confusing its business.[23]

As for those who follow a *scientific* method, they have the choice here of proceeding either *dogmatically* or *skeptically*, but in every case they are obliged to proceed *systematically*. If I name the famous *Wolff* for the former, and *David Hume* for the latter, I can, for my present purpose, leave the rest unnamed. The *critical* path alone is still open. If the reader has had the kindness and patience to travel this path in my company, he may now judge whether, if he cares to contribute his own share toward making this footpath into a highway, what many centuries could not accomplish may yet be achieved before the end of the present one: namely, to bring human reason to complete satis-

21 See Locke, *An Essay Concerning Human Understanding* (1689), 4.3.18 and 4.10.
22 Misology: hatred of reason or argument (Plato, *Phaedo* 89d).
23 Democritus (c. 460–370 BC) reportedly said that truth lies in the depths, as in a well (Diogenes Laertius 9.72). The Latin is Persius, *Satires* 3.78–79; Arcesilaus (316–241 BC) led Plato's Academy into skepticism.

faction in what has always occupied its desire for knowledge, but hitherto in vain.

Appendix I: Preface to the first edition (1781)

The original preface: reason's fate to be burdened by questions it cannot answer.

IV 7 Human reason has a peculiar fate in one kind of its cognitions: it is burdened with questions that it cannot dismiss, because they are posed to it by the nature of reason itself, but that it also cannot answer, because they surpass every capacity of human reason.

Reason falls into this predicament through no fault of its own. It begins from principles whose use is unavoidable in the course of experience and at the same time sufficiently confirmed by it. With these it climbs (as its nature also requires) ever higher, to more remote conditions. But since it becomes aware that in this way its business must always remain unfinished, because the questions never cease, it sees itself compelled to take refuge in principles that go beyond every possible use in experience, and yet seem so unobjectionable that even common human reason agrees with them. By doing so, however, reason plunges itself into darkness and contradictions. From these it can indeed infer that errors must lie hidden somewhere at the bottom of things; but it cannot discover them, because the principles it uses go beyond the boundary of all experience and so no longer acknowledge any touchstone of experience. The battlefield of these endless disputes is called *metaphysics*.

There was a time when metaphysics was called the *queen* of all the sciences, and if the will is taken for the deed, it certainly

deserved this title of honor, on account of the preeminent importance of its object. Now the fashionable tone of the age [IV 8] requires that one show it nothing but contempt, and the matron, cast out and forsaken, laments like *Hecuba*: *modo maxima rerum, tot generis natisque potens—nunc trahor exul, inops* ["only lately the greatest of all, powerful through so many sons-in-law and children—now I am dragged away, an exile, destitute"]—*Ovid*, *Metamorphoses*.[1]

At first, under the administration of the *dogmatists*, its rule was *despotic*. But because its legislation still bore traces of the ancient barbarism, this rule gradually degenerated through internal wars into complete *anarchy*; and the *skeptics*, a kind of nomads who abhor all permanent cultivation of the soil, broke up civil union from time to time. Fortunately, however, they were few in number, and so they could not prevent the dogmatists from trying again and again to cultivate the ground anew, though according to no plan on which they agreed among themselves. In more recent times, it is true, it once seemed as though all these disputes were to be brought to an end, and the legitimacy of those claims completely decided, by a certain *physiology* of the human understanding (that of the famous *Locke*). But it turned out otherwise. The birth of that supposed queen was traced to the rabble of common experience, and her pretensions should rightly have become suspect on that account. Yet because this *genealogy* had in fact been falsely invented for her, she went on asserting her claims. As a result everything fell back once more into the old, worm-eaten *dogmatism*, and from there into the very contempt from which the science was to have been rescued. Now, after all paths (as people persuade themselves) have been tried in vain, what reigns in the sciences is weariness and complete *indifferentism*, the mother of chaos and night. Yet it is at the same time the origin, or at least the prelude, of their imminent transformation and enlightenment,

1 Ovid, *Metamorphoses* 13.508–510: Hecuba, queen of Troy, lamenting after the city's fall.

when through ill-applied diligence they have become obscure, confused and useless.

For it is futile to try to feign *indifference* toward inquiries whose object cannot be *indifferent* to human nature. Moreover, those supposed *indifferentists*, however much they plan to make themselves unrecognizable by exchanging the language of the schools for a popular tone, inevitably fall back—so far as they think anything at all—into metaphysical assertions, for which they nonetheless professed such contempt. Still, this indifference, which arises in the midst of the flourishing of all the sciences and strikes precisely the one whose cognitions—if such were to be had—we would least of all be willing to give up, is IV 9
a phenomenon that deserves attention and reflection. It is evidently the effect not of frivolity but of the matured *power of judgment*[2] of the age, which will no longer be put off with illusory knowledge. It is a summons to reason to take up anew the most difficult of all its tasks, namely that of self-knowledge, and to institute a court of justice that will secure reason in its rightful claims, but dismiss all groundless pretensions—not by decrees, but according to reason's own eternal and unalterable laws. And this court is none other than *the critique of pure reason* itself.

2 KANT'S NOTE. One hears complaints now and then about the shallowness of our age's way of thinking and the decline of rigorous science. But I do not see that the sciences whose foundation has been well laid, such as mathematics, natural science and so on, deserve this reproach in the least. On the contrary, they maintain their old reputation for rigor, and in the case of natural science even surpass it. The same spirit would also prove effective in other kinds of cognition, if only care had first been taken to correct their principles. In the absence of such correction, indifference and doubt, and finally strict critique, are rather proofs of a *rigorous* way of thinking. Our age is the true age of critique, to which everything must submit. *Religion* through its *holiness*, and *legislation* through its *majesty*, commonly seek to exempt themselves from it. But then they arouse just suspicion against themselves, and cannot lay claim to the unfeigned respect that reason grants only to what has been able to withstand its free and public examination.

A CRITIQUE OF THE FACULTY OF REASON

Kant says his critique judges reason itself, deciding the possibility, sources and boundaries of metaphysics.

By this, however, I do not mean a critique of books and systems, but a critique of the faculty of reason in general, with regard to all the cognitions for which it may strive *independently of all experience*. It is therefore the decision about the possibility or impossibility of a metaphysics in general, and the determination of its sources as well as its extent and boundaries—all of this, however, from principles.

I have now set out on this path, the only one that remained, and I flatter myself that I have found on it the removal of all the errors that until now had divided reason against itself in its use apart from experience. I have not evaded its questions by pleading the incapacity of human reason. Rather, I have specified them completely according to principles, and, after discovering the point at which reason misunderstands itself, I have IV 10 resolved them to its complete satisfaction. The answer to those questions has not, to be sure, turned out as dogmatically fanatical curiosity might have expected; for that could be satisfied only by magic arts, in which I am not versed. But that was probably not the intention of our reason's natural vocation either; and the duty of philosophy was to remove the deception that arose from misinterpretation, however many cherished and beloved delusions might perish in the process. In this undertaking I have made thoroughness my chief concern, and I venture to say that there cannot be a single metaphysical problem that has not been solved here, or for whose solution the key has not at least been provided. In fact pure reason is so perfect a unity that if its principle were inadequate to even a single one of all the questions posed to it by its own nature, one might as well simply throw that principle away, since it would then also be unequal to any of the others with complete reliability.

In saying this I believe I can see on the reader's face an indignation mixed with contempt at claims that seem so boastful and immodest. And yet they are incomparably more moderate than those of any author of the most ordinary program who claims to prove in it, say, the simple nature of the *soul* or the necessity of a first *beginning of the world*. For such an author undertakes to extend human cognition beyond all the boundaries of possible experience, which I humbly confess is wholly beyond my capacity. Instead, I have to do solely with reason itself and its pure thinking. To gain thorough knowledge of it I need not search far around me, since I find it within myself; and common logic already gives me an example of how all its simple acts can be enumerated completely and systematically. Only here the question is raised how much I may hope to accomplish with reason if all the material and assistance of experience is taken away from me.

So much for *completeness* in reaching *each* of the ends, and *thoroughness* in reaching *all* of them together—ends that are set for us not by some arbitrary resolution but by the nature of cognition itself, as the *matter* of our critical investigation.

Further, *certainty* and *clarity*, two points that concern its [IV 11]
form, are to be regarded as essential demands that may rightly be made of an author who ventures on so slippery an undertaking.

CERTAINTY

No opinions or hypotheses are allowed; Kant distinguishes the objective from the subjective deduction.

As for *certainty*, I have pronounced this judgment on myself: in this kind of inquiry it is in no way permitted to hold *opinions*, and everything in it that even looks like a hypothesis is contraband, which may not be offered for sale even at the lowest price, but must be confiscated as soon as it is discovered. For every cognition that is supposed to stand firm *a priori* itself announces that it wants to be held absolutely necessary. This holds all the

more of a determination of all pure cognitions *a priori*, which is to be the standard, and hence itself the example, of all apodictic (philosophical) certainty. Whether I have accomplished in this respect what I undertake to do remains wholly for the reader to judge; for it befits an author only to present grounds, not to judge their effect on his judges. But so that nothing may innocently cause those grounds to be weakened, the author may well be permitted to point out himself those passages that could give rise to some mistrust, even though they concern only a subsidiary aim. In this way he can forestall in good time the influence that even the slightest hesitation on the reader's part on this point might have on his judgment regarding the main aim.

I know of no investigations more important for fathoming the faculty we call understanding, and at the same time for determining the rules and boundaries of its use, than those I have undertaken in the second chapter of the Transcendental Analytic under the title *Deduction of the Pure Concepts of the Understanding*. They have also cost me the most effort—effort that, I hope, has not gone unrewarded. This inquiry, which is laid rather deep, has two sides, however. One side refers to the objects of the pure understanding, and is meant to demonstrate and make comprehensible the objective validity of its concepts *a priori*; for that very reason it is also essential to my purposes. The other side aims to consider the pure understanding itself, as to its possibility and the cognitive powers on which it rests, and hence to consider it in its subjective relation. And although this discussion is of great importance for my main aim, it does not belong essentially to it; for the chief question always IV 12 remains: what, and how much, can understanding and reason cognize free of all experience? and not: how is *the faculty of thinking* itself possible? Since the latter is, as it were, a search for the cause of a given effect, and to that extent has something about it resembling a hypothesis (although, as I shall show on another occasion, this is not in fact the case), it seems as though this were a case in which I allow myself to hold an *opinion*, and in which the reader must therefore also be free to hold a differ-

ent *opinion*. In view of this I must forestall the reader with a reminder: even if my subjective deduction should not have produced in him the full conviction I expect, the objective deduction, which is my principal concern here, still retains its full force. For this purpose, what is said on pages 92 to 93 may by itself suffice.[3]

CLARITY

Kant explains why he left out examples, and promises a Metaphysics of Nature.

Finally, as for *clarity*, the reader has a right to demand, first, *discursive* (logical) *clarity through concepts*, but then also *intuitive* (aesthetic) *clarity* through *intuitions*, that is, through examples or other illustrations *in concreto* [in the concrete]. I have taken sufficient care of the first. That concerned the essence of my project; but it was also the accidental cause of my not being able to satisfy the second demand, which, though not so strict, is still fair. Almost constantly, as my work went on, I was undecided how to handle this. Examples and illustrations always seemed necessary to me, and so in the first draft they did in fact find their way into their proper places. But I very soon saw the magnitude of my task and the multitude of objects I would have to deal with. And when I became aware that these alone, in a dry, merely *scholastic* presentation, would already make the work long enough, I found it inadvisable to swell it further with examples and illustrations, which are necessary only for *popular* purposes. This was all the more so because this work could never be made suitable for popular use, and genuine experts in the science do not need this relief so much. Though it is always pleasant, here it could even have brought with it something counterproductive. Abbé *Terrasson* says, it is true, that if one measures the size of a book not by the number of its pages but by the time needed to understand it, one could say of many a

3 Kant's page references are to the first edition (1781); pages 92–93 there correspond to § 14 of this edition.

book that *it would be much shorter if it were not so short*. On the other hand, if IV 13 one aims at making intelligible an extensive whole of speculative cognition that is nevertheless connected in a single principle, one could say with equal right: *many a book would have been much clearer if it had not tried to be quite so clear*.[4] For the aids to clarity help *in the parts*, but often distract *in the whole*. They do not let the reader arrive quickly enough at a survey of the whole; and with all their bright colors they paste over the articulation, or organic structure, of the system and make it unrecognizable—though it is this structure that matters most if one is to judge the system's unity and soundness.

It can, I think, serve as no small inducement for the reader to join his efforts with the author's, if he has the prospect of carrying out a great and important work, according to the plan laid before him, completely and yet lastingly. Now metaphysics, according to the concepts of it that we shall give here, is the only one of all the sciences that may promise itself such completion—and indeed in a short time, and with only a little effort, provided it is combined—so that nothing remains for posterity except to arrange everything in the *didactic* manner according to its own purposes, without thereby being able to add to the content in the least. For it is nothing but the *inventory* of all our possessions through *pure reason*, systematically ordered. Nothing can escape us here. For what reason produces wholly out of itself cannot hide, but is brought to light by reason itself as soon as one has discovered its common principle. The perfect unity of this kind of cognitions—and indeed from nothing but pure concepts, without anything from experience, or even a *particular* intuition that would lead to determinate experience, being able to have any influence on them so as to extend and increase them—makes this unconditioned completeness not only feasible but also necessary. *Tecum habita et noris, quam sit tibi curta supellex*

4 Jean Terrasson (1670–1750), French priest and man of letters; the remark comes from his posthumous *Philosophy Applicable to All Objects of the Mind and Reason* (1754).

["Dwell with yourself, and you will know how scant your household goods are"]. Persius.[5]

I hope to deliver such a system of pure (speculative) reason myself, under the title *Metaphysics of Nature*. Though not half as long, it will have incomparably richer content than the present critique, which first had to lay out the sources and conditions of its possibility, and needed to clear and level a completely overgrown IV 14 ground. Here I expect from my reader the patience and impartiality of a *judge*; there, however, the willingness and assistance of a *collaborator*. For however completely all the *principles* for the system are presented in the critique, the thoroughness of the system itself still requires that it not lack any *derived* concepts. These cannot be estimated *a priori*, but must be sought out little by little. Likewise, since the whole *synthesis* of concepts was exhausted in the critique, it is further required in the system that the same be done with regard to their *analysis*—all of which is easy, and more entertainment than work.

I have only a few more remarks to make about the printing. Since its start was somewhat delayed, I was able to see only about half of the proof sheets. In these I find some misprints, though none that confuse the sense, except the one on p. 379, line 4 from the bottom, where *specific* must be read instead of *skeptical*. The Antinomy of Pure Reason, from page 425 to 461, is set out in the manner of a table: everything belonging to the *Thesis* runs continuously on the left-hand page, and everything belonging to the *Antithesis* on the right. I arranged it this way so that thesis and antithesis could be compared with each other all the more easily.

5 Persius, *Satires* 4.52.

Appendix II: The Transcendental Deduction, first edition

The first version of the deduction: the threefold synthesis of apprehension, reproduction and recognition.

ZWEITER ABSCHNITT. VON DEN GRÜNDEN A PRIORI ZUR MÖGLICHKEIT DER ERFAHRUNG.

IV 74 That a concept should be generated completely *a priori* and should relate to an object, even though it neither itself belongs within the concept of possible IV 75 experience nor consists of elements of a possible experience, is entirely contradictory and impossible. For it would then have no content, since no intuition would correspond to it; intuitions in general, through which objects can be given to us, make up the field, or the entire object, of possible experience. A concept *a priori* that did not relate to these would be only the logical form of a concept, but not the concept itself through which something would be thought.[1]

So if there are pure concepts *a priori*, they certainly cannot contain anything empirical. Yet they must nonetheless be nothing but conditions *a priori* of a possible experience, since on this alone can their objective reality rest.

If we want to know, then, how pure concepts of the understanding are possible, we must investigate what the conditions *a priori* are on which the possibility of experience depends, and which underlie it even when we abstract from everything

1 The first section of this chapter (§§ 13–14) was kept in the second edition; from here on Kant rewrote the deduction entirely in 1787.

empirical in appearances. A concept that expressed this formal and objective condition of experience universally and sufficiently would be called a pure concept of the understanding. Once I have pure concepts of the understanding, I can of course also think up objects that are perhaps impossible, or perhaps possible in themselves but incapable of being given in any experience. For in connecting those concepts something may be left out that nevertheless necessarily belongs to the condition of a possible experience (the concept of a spirit); or pure concepts of the understanding may be extended further than experience can take in (the concept of God). But the *elements* of all cognitions *a priori*, even of arbitrary and absurd fictions, though they cannot be borrowed from experience (for then they would not be cognitions *a priori*), must always contain the pure conditions *a priori* of a possible experience and of an object of it. Otherwise not only would nothing at all be thought through them, but without *data* they could not even arise in thought.

Now we find these concepts, which contain *a priori* the pure thinking in every experience, in the categories. And it is already a sufficient deduction of them, and a justification of their objective validity, if we can prove that by means of them alone an object can be thought. But in such a thought [IV 76] more is at work than the single faculty of thinking, namely the understanding; and the understanding itself, as a faculty of cognition that is supposed to relate to objects, equally needs an explanation of how this relation is possible. So we must first consider the subjective sources that make up the foundation *a priori* of the possibility of experience, not according to their empirical but according to their transcendental constitution.

If every single representation were completely foreign to every other, isolated as it were and cut off from it, then nothing like cognition would ever arise, for cognition is a whole of compared and connected representations. So if I ascribe a synopsis to sense because its intuition contains a manifold, a synthesis always corresponds to this synopsis; and *receptivity* can make cognitions possible only when combined with *spontaneity*. This

spontaneity is the ground of a threefold synthesis that necessarily occurs in all cognition: namely, the *apprehension* of representations, as modifications of the mind in intuition; their *reproduction* in imagination; and their *recognition* in the concept. These point the way to three subjective sources of cognition, which make possible the understanding itself and, through it, all experience as an empirical product of the understanding.

PRELIMINARY REMINDER

Kant warns that the four numbered sections prepare the reader rather than give the systematic theory.

The deduction of the categories involves so many difficulties, and forces us to penetrate so deeply into the first grounds of the possibility of our cognition in general, that I have found it more advisable to avoid the length of a complete theory and yet omit nothing in so necessary an investigation. I shall therefore, in the following four numbered sections, prepare the reader rather than instruct him, and only in the third section, which comes next, present the exposition of these elements of the understanding systematically. For this reason the reader should not be put off until then by the obscurity that is unavoidable at first on a path never before trodden, but which, I hope, will clear up into complete insight in the section just mentioned.

1. THE SYNTHESIS OF APPREHENSION IN INTUITION

Running through and taking together a manifold is needed even for the pure representations of space and time.

IV 77 Wherever our representations may arise from—whether they are produced by the influence of external things or by internal causes, whether they have come about *a priori* or empirically as appearances—they nevertheless belong, as modifications of the mind, to inner sense. As such, all our cognitions are in the end subject to the formal condition of inner sense, namely time, since in time they must all be ordered, connected and brought

into relations. This is a general remark that must be made the basis of everything that follows.

Every intuition contains a manifold within it, which yet would not be represented as a manifold if the mind did not distinguish time in the succession of impressions one upon another; for as *contained in a single moment*, no representation can ever be anything but absolute unity. Now in order that unity of intuition may come from this manifold (as, say, in the representation of space), it is necessary first to run through the manifold and then to take it together. This act I call the *synthesis of apprehension*, because it is aimed directly at intuition. Intuition does indeed offer a manifold, but it can never bring this about as a manifold, and indeed as one contained in *one representation*, without a synthesis occurring in the process.

Now this synthesis of apprehension must also be exercised *a priori*, that is, with respect to representations that are not empirical. For without it we could have neither the representation of space nor that of time *a priori*, since these can be generated only through the synthesis of the manifold that sensibility offers in its original receptivity. So we have a pure synthesis of apprehension.

2. THE SYNTHESIS OF REPRODUCTION IN IMAGINATION

Association presupposes that appearances follow rules; a pure transcendental synthesis of imagination underlies it.

It is, admittedly, a merely empirical law by which representations that have often followed or accompanied one another eventually become associated with each other and so are placed in a connection. According to this connection, even without [IV 78] the presence of the object, one of these representations brings about a transition of the mind to the other according to a constant rule. But this law of reproduction presupposes that the appearances themselves are actually subject to such a rule, and that in the manifold of their representations an accompaniment or succession takes place in accordance with certain rules. For

without that, our empirical imagination would never get anything to do that suited its faculty, and so would remain hidden in the interior of the mind as a dead faculty, unknown even to ourselves. If cinnabar were now red, now black, now light, now heavy; if a human being were changed now into this animal shape, now into that; if on the longest day the land were covered now with fruits, now with ice and snow—then my empirical imagination would never even get the opportunity to call heavy cinnabar to mind on the representation of the color red. Or if a certain word were attached now to this thing, now to that, or the very same thing were named now one way, now another, without any definite rule governing here to which the appearances are already of themselves subject, then no empirical synthesis of reproduction could take place.[2]

There must therefore be something that itself makes this reproduction of appearances possible, by being the ground *a priori* of a necessary synthetic unity of them. One soon arrives at this, however, if one reflects that appearances are not things in themselves but the mere play of our representations, which in the end come down to determinations of inner sense. Now if we can show that even our purest intuitions *a priori* provide no cognition except insofar as they contain a combination of the manifold that makes a thoroughgoing synthesis of reproduction possible, then this synthesis of the imagination is also grounded, prior to all experience, on principles *a priori*. And we must assume a pure transcendental synthesis of the imagination, which itself underlies the possibility of all experience (since experience necessarily presupposes the reproducibility of appearances). Now it is obvious that if I draw a line in thought, or want to think the time from one noon to the next, or even just represent a certain number to myself, I must first necessarily grasp in thought one of these many representations after another. But if I always lost the preceding ones from my thoughts (the first parts of the IV 79 line, the preceding parts of time, or the units represented one after another) and did not

2 Cinnabar: mercury sulfide, a heavy red mineral used as a pigment (vermilion).

reproduce them as I went on to the following ones, then no whole representation, and none of the thoughts just mentioned —indeed not even the purest and first basic representations of space and time—could ever arise.

The synthesis of apprehension is therefore inseparably bound up with the synthesis of reproduction. And since the former makes up the transcendental ground of the possibility of all cognitions in general (not only empirical but also pure *a priori* ones), the reproductive synthesis of the imagination belongs among the transcendental acts of the mind. With respect to it, we shall call this faculty, too, the transcendental faculty of imagination.

3. THE SYNTHESIS OF RECOGNITION IN THE CONCEPT

One consciousness unifies the manifold; the object = X and transcendental apperception are introduced.

Without consciousness that what we are thinking is the very same as what we thought a moment before, all reproduction in the series of representations would be in vain. For it would be a new representation in the present state, which would not belong at all to the act by which it was to have been generated little by little; and its manifold would never make up a whole, because it would lack the unity that only consciousness can give it. If, in counting, I forget that the units now hovering before my senses were added to one another by me little by little, I would not cognize the generation of the multitude through this successive addition of one to one, and so would not cognize the number either; for this concept consists solely in the consciousness of this unity of the synthesis.

The word "concept" could itself lead us to this remark. For it is this *one* consciousness that unites into one representation the manifold that has been intuited little by little and then also reproduced. This consciousness may often be only faint, so that we connect it with the generation of the representation only in the effect, and not in the act itself, that is, not immediately. But

despite these differences a consciousness must always be found, even if it lacks conspicuous clarity; and without it [IV 80] concepts, and with them cognition of objects, are entirely impossible.[3]

And here it is necessary to make clear what we mean by the expression "an object of representations." We said above that appearances themselves are nothing but sensible representations, which in themselves, in just the same way, must not be regarded as objects (outside the power of representation). What, then, do we mean when we speak of an object corresponding to cognition, and therefore also distinct from it? It is easy to see that this object must be thought only as something in general = X, since outside our cognition we have nothing that we could set over against this cognition as corresponding to it.

We find, however, that our thought of the relation of all cognition to its object carries with it something of necessity. The object is regarded as what prevents our cognitions from being determined haphazardly or arbitrarily; rather, they are determined *a priori* in a certain way. For insofar as they are to relate to an object, they must also necessarily agree with one another in relation to it, that is, they must have the unity that makes up the concept of an object.

But it is clear that, since we have to do only with the manifold of our representations, and since that X which corresponds to them (the object) is nothing for us—because it is supposed to be something distinct from all our representations—the unity that the object makes necessary can be nothing other than the formal unity of consciousness in the synthesis of the manifold of representations. We then say that we cognize the object when we have brought about synthetic unity in the manifold of intuition. But this is impossible if the intuition could not have been produced through such a function of synthesis according to a rule as makes the reproduction of the manifold necessary *a priori*, and makes possible a concept in which this manifold is united. Thus we think a triangle as an object when we are con-

3 In German, *Begriff* (concept) comes from *begreifen*, "to grasp" or "comprehend": a concept gathers the manifold together.

scious of the composition of three straight lines according to a rule by which such an intuition can always be exhibited. This *unity of the rule* determines the whole manifold and restricts it to conditions that make the unity of apperception possible; and [IV 81] the concept of this unity is the representation of the object = X, which I think through the predicates of a triangle just mentioned.

All cognition requires a concept, however imperfect or obscure it may be. But a concept, as to its form, is always something universal, something that serves as a rule. Thus the concept of body, by the unity of the manifold that is thought through it, serves as a rule for our cognition of outer appearances. But it can be a rule for intuitions only by representing, in given appearances, the necessary reproduction of their manifold, and hence the synthetic unity in our consciousness of them. Thus the concept of body, when we perceive something outside us, makes necessary the representation of extension, and with it the representations of impenetrability, shape, and so on.

All necessity is always grounded in a transcendental condition. There must therefore be a transcendental ground of the unity of consciousness in the synthesis of the manifold of all our intuitions, and hence also of the concepts of objects in general, and consequently also of all objects of experience. Without this ground it would be impossible to think any object for our intuitions; for the object is nothing more than the something whose concept expresses such a necessity of synthesis.

TRANSCENDENTAL APPERCEPTION

Pure, unchangeable consciousness of identity grounds the unity of all concepts and the connection of appearances by rules.

Now this original and transcendental condition is none other than *transcendental apperception*. Consciousness of oneself according to the determinations of our state in inner perception is merely empirical and always changeable; there can be no

fixed or abiding self in this flux of inner appearances. It is usually called *inner sense*, or *empirical apperception*. What is to be represented *necessarily* as numerically identical cannot be thought as such through empirical data. There must be a condition that precedes all experience and makes experience itself possible, if it is to validate such a transcendental presupposition.

Now no cognitions can take place in us, no connection and unity of them with one another, without that unity of consciousness which precedes all data of intuitions, and in relation to which alone all representation of objects is possible. This pure, original, unchangeable consciousness I will now call *transcendental* [IV 82] *apperception*. That it deserves this name is already evident from the fact that even the purest objective unity, namely that of the concepts *a priori* (space and time), is possible only through the relation of intuitions to it. The numerical unity of this apperception therefore underlies all concepts *a priori*, just as the manifoldness of space and time underlies the intuitions of sensibility.

But this very transcendental unity of apperception makes, out of all possible appearances that can ever be together in one experience, a connection of all these representations according to laws. For this unity of consciousness would be impossible if the mind, in the cognition of the manifold, could not become conscious of the identity of the function by which it combines the manifold synthetically in one cognition. So the original and necessary consciousness of the identity of oneself is at the same time a consciousness of an equally necessary unity of the synthesis of all appearances according to concepts, that is, according to rules. These rules not only make the appearances necessarily reproducible, but thereby also determine an object for their intuition, that is, the concept of something in which they are necessarily connected. For the mind could not possibly think the identity of itself in the manifoldness of its representations, and indeed think it *a priori*, if it did not have before its eyes the identity of its own act, which subjects all synthesis of

apprehension (which is empirical) to a transcendental unity and first makes its connection according to rules *a priori* possible. We will now also be able to determine our concepts of an *object* in general more correctly. All representations, as representations, have their object, and can themselves in turn be objects of other representations. Appearances are the only objects that can be given to us immediately, and what in them relates immediately to the object is called intuition. But these appearances are not things in themselves; they are themselves only representations, which in turn have their object—an object, therefore, that can no longer be intuited by us, and so may be called the nonempirical, that is, transcendental, object = X.

The pure concept of this transcendental object (which in all our cognitions is really always the same = X) is what can give all our empirical concepts in general a relation to an [IV 83] object, that is, objective reality. This concept cannot contain any determinate intuition at all, and so will concern nothing but the unity that must be found in a manifold of cognition insofar as it stands in relation to an object. But this relation is nothing other than the necessary unity of consciousness, and hence also of the synthesis of the manifold, through a common function of the mind that combines it in one representation. Now since this unity must be regarded as necessary *a priori* (for otherwise cognition would be without an object), the relation to a transcendental object, that is, the objective reality of our empirical cognition, will rest on a transcendental law: that all appearances, insofar as objects are to be given to us through them, must stand under rules *a priori* of their synthetic unity, according to which alone their relation in empirical intuition is possible. That is, in experience they must stand under conditions of the necessary unity of apperception, just as in mere intuition they must stand under the formal conditions of space and time; indeed, it is through those conditions that every cognition first becomes possible.

4. PRELIMINARY EXPLANATION OF THE CATEGORIES AS COGNITIONS A PRIORI

The categories are the conditions of thinking in one possible experience, and so have objective validity.

There is only one experience, in which all perceptions are represented as in thoroughgoing and lawful connection, just as there is only one space and one time, in which all forms of appearance and every relation of being or not-being take place. When we speak of different experiences, these are only so many perceptions, insofar as they belong to one and the same universal experience. For the thoroughgoing and synthetic unity of perceptions is precisely what makes up the form of experience, and it is nothing other than the synthetic unity of appearances according to concepts.

Unity of synthesis according to empirical concepts would be entirely contingent, and if these concepts were not based on a transcendental IV 84 ground of unity, it would be possible for a swarm of appearances to fill our soul without experience ever arising from it. But then all relation of cognition to objects would also fall away, because cognition would lack connection according to universal and necessary laws. It would then be thoughtless intuition, but never cognition, and so for us as good as nothing at all.

The conditions *a priori* of a possible experience in general are at the same time conditions of the possibility of the objects of experience. Now I maintain that the *categories* cited above are nothing but the *conditions of thinking in a possible experience*, *just as space and time contain the conditions of intuition* for that same experience. They are therefore also fundamental concepts for thinking objects in general corresponding to appearances, and so have objective validity *a priori*—which was what we really wanted to know.

But the possibility, and indeed the necessity, of these categories rests on the relation that the whole of sensibility, and with it all possible appearances, have to original apperception. In ori-

ginal apperception everything must necessarily conform to the conditions of the thoroughgoing unity of self-consciousness, that is, stand under universal functions of synthesis—namely, of synthesis according to concepts, since only in this can apperception prove its thoroughgoing and necessary identity *a priori*. Thus the concept of a cause is nothing but a synthesis (of what follows in the time series with other appearances) according to concepts. And without unity of this kind, which has its rule *a priori* and subjects appearances to itself, thoroughgoing and universal, and hence necessary, unity of consciousness would not be found in the manifold of perceptions. But then these perceptions would also belong to no experience, and consequently would be without an object and nothing but a blind play of representations, that is, less than a dream.

All attempts to derive those pure concepts of the understanding from experience, and to ascribe to them a merely empirical origin, are therefore entirely futile and in vain. I will not mention that, for example, the concept of a cause carries with it a feature of necessity that no experience at all can give. Experience does teach us that something else usually follows upon an appearance, but not that it [IV 85] must necessarily follow upon it, nor that one could infer from it, as a condition, to the consequence *a priori* and quite universally. But as for that empirical rule of *association*, which one must after all assume throughout when one says that everything in the series of events stands under rules to such an extent that nothing ever happens without being preceded by something upon which it always follows—on what, I ask, does this rest, as a law of nature? And how is this association itself possible? The ground of the possibility of the association of the manifold, insofar as it lies in the object, is called the *affinity* of the manifold. I ask, then: how do you make comprehensible to yourselves the thoroughgoing affinity of appearances (through which they stand, and must stand, under constant laws)?

On my principles it is quite comprehensible. All possible appearances belong, as representations, to the whole of possible

self-consciousness. But from this, as a transcendental representation, numerical identity is inseparable and certain *a priori*, because nothing can enter cognition except by means of this original apperception. Now since this identity must necessarily enter into the synthesis of the whole manifold of appearances, insofar as the synthesis is to become empirical cognition, the appearances are subject to conditions *a priori* with which their synthesis (of apprehension) must thoroughly conform. But the representation of a universal condition according to which a certain manifold can be posited (and hence posited in one and the same way) is called a *rule*, and, when it must be so posited, a *law*. So all appearances stand in a thoroughgoing connection according to necessary laws, and hence in a *transcendental* affinity, of which the *empirical* affinity is the mere consequence.

That nature should conform to our subjective ground of apperception, and indeed should depend on it with respect to its lawfulness, certainly sounds very absurd and strange. But if one considers that this nature is in itself nothing but a sum total of appearances, and hence not a thing in itself but merely a multitude of representations of the mind, one will not be surprised to see it only in the radical faculty of all our cognition, namely transcendental apperception—in that unity for whose sake alone it can be called the object of all possible experience, that is, nature. Nor will one be surprised that [IV 86] for this very reason we can cognize this unity *a priori*, and hence as necessary—which we would certainly have to give up if it were given *in itself*, independently of the first sources of our thinking. For then I would not know where we should get the synthetic propositions of such a universal unity of nature, since in that case we would have to borrow them from the objects of nature themselves. But since that could happen only empirically, nothing could be drawn from it but merely contingent unity, which falls far short of the necessary connection that one means when one speaks of nature.

SECTION THREE: THE UNDERSTANDING'S RELATION TO OBJECTS IN GENERAL

Sense, imagination and apperception are traced from pure apperception down to the empirical.

What we set out in the previous section separately and one piece at a time, we will now present united and in its connection. There are three subjective sources of cognition on which the possibility of an experience in general, and of cognition of its objects, rests: *sense*, *imagination* and *apperception*. Each of them can be regarded as empirical, namely in its application to given appearances; but all of them are also elements or foundations *a priori* that make this empirical use itself possible. *Sense* represents appearances empirically in *perception*; *imagination* in association (and reproduction); *apperception* in the *empirical consciousness* of the identity of these reproduced representations with the appearances through which they were given, and hence in *recognition*.

But all perception has pure intuition *a priori* as its ground (with respect to perceptions as representations, the form of inner intuition, time); association has the pure synthesis of the imagination; and empirical consciousness has pure apperception, that is, the thoroughgoing identity of oneself in all possible representations.

IV 87 Now if we want to trace the inner ground of this connection of representations back to the point at which they must all converge in order first to obtain in it unity of cognition for a possible experience, we must begin with pure apperception. All intuitions are nothing for us, and do not concern us in the least, if they cannot be taken up into consciousness, whether they flow into it directly or indirectly; and only through this is cognition possible. We are conscious *a priori* of the thoroughgoing identity of ourselves with respect to all representations that can ever belong to our cognition, as a necessary condition of the possibility of all representations (since these represent something in me only by belonging, with everything else, to one con-

sciousness, and so must at least be capable of being connected in it). This principle holds firm *a priori* and can be called the *transcendental principle of the unity* of all the manifold of our representations (and hence also in intuition). Now the unity of the manifold in one subject is synthetic; so pure apperception supplies a principle of the synthetic unity of the manifold in all possible intuition.[4]

IV 88 This synthetic unity, however, presupposes a synthesis, or includes one; and if the former is to be necessary *a priori*, the latter must also be a synthesis *a priori*. So the transcendental unity of apperception relates to the pure synthesis of the imagination, as a condition *a priori* of the possibility of all composition of the manifold in one cognition. But only the *productive synthesis of the imagination* can take place *a priori*, for the *reproductive* synthesis rests on conditions of experience. So the principle of the necessary unity of the pure (productive) synthesis of the imagination, prior to apperception, is the ground of the possibility of all cognition, especially of experience.

Now we call the synthesis of the manifold in the imagination transcendental when, without distinction of intuitions, it is directed at nothing but the combination of the manifold *a priori*;

4 KANT'S NOTE. Pay careful attention to this proposition, which is of great importance. All representations have a necessary relation to a *possible* empirical consciousness. For if they did not have this, and if it were altogether impossible to become conscious of them, that would amount to saying that they did not exist at all. But all empirical consciousness has a necessary relation to a transcendental consciousness (one that precedes all particular experience), namely the consciousness of myself as original apperception. It is therefore absolutely necessary that in my cognition all consciousness should belong to one consciousness (of myself). Here, then, is a synthetic unity of the manifold (of consciousness) that is cognized *a priori*, and that provides the ground for synthetic propositions *a priori* concerning pure thinking, just as space and time provide the ground for propositions concerning the form of mere intuition. The synthetic proposition that all the various kinds of *empirical consciousness* must be combined in one single self-consciousness is the *absolutely* first and synthetic principle of our thinking in general. But it must not be overlooked that the mere representation *I*, in relation to all others (whose collective unity it makes possible), is transcendental consciousness. Whether this representation is clear (empirical consciousness) or obscure does not matter here; not even its actuality matters. Rather, the possibility of the logical form of all cognition rests necessarily on the *relation to this apperception as a faculty*.

and the unity of this synthesis is called transcendental when it is represented as necessary *a priori* in relation to the original unity of apperception. Now since this original unity underlies the possibility of all cognitions, the transcendental unity of the synthesis of the imagination is the pure form of all possible cognition, through which, therefore, all objects of possible experience must be represented *a priori*.

The *unity* of *apperception in relation to the synthesis* of the *imagination* is the *understanding*; and this same unity, in relation to the *transcendental synthesis* of the imagination, is the *pure understanding*. In the understanding, then, there are pure cognitions *a priori* that contain the necessary unity of the pure synthesis of the imagination with respect to all possible appearances. These, however, are the *categories*, that is, pure concepts of the understanding. Consequently the empirical cognitive power of human beings necessarily contains an understanding that relates to all objects of the senses, though only by means of intuition and its synthesis through imagination—an understanding under which, therefore, all appearances stand as data for a possible experience. Now since this relation of appearances to possible experience is likewise necessary (because without it we would obtain no cognition at all through them, and so they would not concern us at all), it follows that the pure understanding, by means of the categories, is a IV 89 formal and synthetic principle of all experiences, and that appearances have a *necessary relation to the understanding*.

FROM BELOW: APPREHENSION, ASSOCIATION, AFFINITY

Starting from perception, Kant shows that the affinity of appearances rests on the productive imagination.

We will now set before our eyes the necessary connection of the understanding with appearances by means of the categories, by beginning from below, namely with the empirical. The first thing that is given to us is appearance, which, when it is combined with consciousness, is called perception. (Without the

relation to an at least possible consciousness, appearance could never become an object of cognition for us, and so would be nothing for us; and since it has no objective reality in itself and exists only in cognition, it would be nothing at all.) But because every appearance contains a manifold, so that different perceptions are in themselves found scattered and single in the mind, a combination of them is needed, which they cannot have in sense itself. There is therefore in us an active faculty of the synthesis of this manifold, which we call imagination, and whose action exercised directly upon perceptions I call apprehension.[5] For the imagination is to bring the manifold of intuition into an image; it must therefore first take the impressions up into its activity, that is, apprehend them.

But it is clear that even this apprehension of the manifold would by itself produce no image and no connection of impressions, were there not a subjective ground for calling back a perception from which the mind has passed on to another, bringing it over to the ones that follow, and so exhibiting whole series of them. This ground is a reproductive faculty of imagination, which is itself merely empirical.

But if representations reproduced one another indiscriminately, just as they happened to come together, then again no determinate connection of them would arise, but merely random heaps of them, and hence IV 90 no cognition at all. So their reproduction must have a rule, according to which a representation enters into combination in the imagination with this one rather than with another. This subjective and *empirical* ground of reproduction according to rules is called the *association* of representations.

But if this unity of association did not also have an objective ground, such that it would be impossible for appearances to be

5 KANT'S NOTE. That the imagination is a necessary ingredient of perception itself has surely not yet occurred to any psychologist. This is partly because this faculty was restricted to reproductions only, and partly because it was believed that the senses not only supply us with impressions but even put them together and produce images of objects. For this, beyond the receptivity for impressions, something more is undoubtedly required, namely a function of their synthesis.

apprehended by the imagination otherwise than under the condition of a possible synthetic unity of this apprehension, then it would also be something entirely contingent that appearances fitted into a connection of human cognitions. For even though we had the faculty of associating perceptions, it would still remain in itself entirely undetermined and contingent whether they were also associable. And if they were not, a multitude of perceptions, and perhaps even a whole sensibility, would be possible in which much empirical consciousness would be found in my mind, but separated, and without belonging to one consciousness of myself—which, however, is impossible. For only by counting all perceptions as belonging to one consciousness (original apperception) can I say of all perceptions that I am conscious of them. There must therefore be an objective ground, that is, one that can be seen *a priori*, prior to all empirical laws of the imagination, on which rests the possibility, and indeed the necessity, of a law extending through all appearances: the law, namely, of regarding them throughout as data of the senses that are associable in themselves and subject to universal rules of a thoroughgoing connection in reproduction. This objective ground of all association of appearances I call their *affinity*. But we can find this nowhere except in the principle of the unity of apperception with respect to all cognitions that are to belong to me. According to this principle, all appearances without exception must come into the mind, or be apprehended, in such a way that they agree with the unity of apperception. And this would be impossible without synthetic unity in their connection, which is therefore also objectively necessary.

The objective unity of all (empirical) consciousness in one consciousness (that of original apperception) is thus the necessary condition even of all possible perception; and the affinity of all appearances IV 91 (near or remote) is a necessary consequence of a synthesis in the imagination that is grounded *a priori* on rules.

The imagination is therefore also a faculty of a synthesis *a priori*, for which reason we give it the name of productive imagination. And insofar as its aim with respect to all the manifold of appearance is nothing more than the necessary unity in the synthesis of that manifold, this can be called the transcendental function of the imagination. It is therefore strange, but nonetheless evident from what has been said so far, that only by means of this transcendental function of the imagination do even the affinity of appearances, and with it association, and through association finally reproduction according to laws, and consequently experience itself, become possible. For without it no concepts of objects at all would flow together into one experience.

For the fixed and abiding I (of pure apperception) makes up the correlate of all our representations, insofar as it is merely possible to become conscious of them; and all consciousness belongs to an all-embracing pure apperception just as all sensible intuition, as representation, belongs to a pure inner intuition, namely time. It is this apperception that must be added to the pure imagination in order to make its function intellectual. For in itself the synthesis of the imagination, although exercised *a priori*, is nonetheless always sensible, because it combines the manifold only as it appears in intuition, for example the shape of a triangle. But through the relation of the manifold to the unity of apperception, concepts that belong to the understanding can come about—though only by means of the imagination, in relation to sensible intuition.

We therefore have a pure imagination as a fundamental faculty of the human soul, which underlies all cognition *a priori*. By means of it we bring the manifold of intuition, on the one hand, into combination with the condition of the necessary unity of pure apperception, on the other. The two extreme ends, namely sensibility and understanding, must necessarily be connected by means of this transcendental function of the imagination; for otherwise sensibility would indeed give appearances, but no objects of an empirical cognition, and hence no experience.

Actual experience, which [IV 92] consists of the apprehension, the association (the reproduction) and finally the recognition of appearances, contains in the last and highest of these (the merely empirical elements of experience) concepts that make possible the formal unity of experience, and with it all objective validity (truth) of empirical cognition. These grounds of the recognition of the manifold, insofar as they concern *merely the form of an experience in general*, are those *categories*. On them, therefore, rests all formal unity in the synthesis of the imagination, and by means of this synthesis also all formal unity in its empirical use (in recognition, reproduction, association and apprehension), right down to appearances. For appearances can belong to cognition, and to our consciousness in general, and hence to ourselves, only by means of those elements.

Thus the order and regularity in appearances that we call *nature* we ourselves bring into them; and we could not find them there if we, or the nature of our mind, had not originally put them there. For this unity of nature is supposed to be a necessary, that is, *a priori* certain, unity of the connection of appearances. But how could we ever bring about a synthetic unity *a priori*, if subjective grounds of such unity *a priori* were not contained in the original sources of cognition of our mind, and if these subjective conditions were not at the same time objectively valid, by being the grounds of the possibility of cognizing an object in experience at all?

THE UNDERSTANDING AS LAWGIVER OF NATURE

The understanding is the faculty of rules and itself the source of the laws of nature.

We have explained the *understanding* above in various ways: as a spontaneity of cognition (in contrast to the receptivity of sensibility), as a faculty of thinking, or again as a faculty of concepts, or also of judgments. These explanations, looked at in the light of day, come to the same thing. Now we can characterize it as the *faculty of rules*. This mark is more fruitful and comes closer

to its essence. Sensibility gives us forms (of intuition), but the understanding gives us rules. It is always busy scrutinizing appearances with the aim of finding some rule in them. Rules, insofar as they are objective (and hence necessarily attach to the cognition of the object), are called laws. Although we learn many laws through experience, these are only particular determinations of still higher laws; and the highest of these (under which all the others stand) come *a priori* [IV 93] from the understanding itself. They are not borrowed from experience; rather, they must give appearances their lawfulness and precisely thereby make experience possible. The understanding, then, is not merely a faculty of making rules for itself by comparing appearances: it is itself the lawgiving for nature. That is, without understanding there would be no nature at all, that is, no synthetic unity of the manifold of appearances according to rules; for appearances, as such, cannot take place outside us, but exist only in our sensibility. But nature, as an object of cognition in one experience, with everything it may contain, is possible only in the unity of apperception. The unity of apperception, however, is the transcendental ground of the necessary lawfulness of all appearances in one experience. This same unity of apperception with respect to a manifold of representations (namely, determining it out of a single one) is the rule, and the faculty of these rules is the understanding. All appearances, therefore, as possible experiences, lie *a priori* in the understanding and receive their formal possibility from it, just as, as mere intuitions, they lie in sensibility and are possible, as to their form, only through it.

However exaggerated, however absurd it may sound, then, to say that the understanding is itself the source of the laws of nature, and hence of the formal unity of nature, such an assertion is nonetheless correct and appropriate to its object, namely experience. Empirical laws as such, to be sure, can by no means derive their origin from the pure understanding, any more than the immeasurable manifoldness of appearances can be sufficiently grasped from the pure form of sensible intuition. But all

empirical laws are only particular determinations of the pure laws of the understanding, under which and according to whose norm they first become possible and appearances take on a lawful form—just as all appearances, despite the variety of their empirical form, must nevertheless always conform to the conditions of the pure form of sensibility.

The pure understanding is therefore, in the categories, the law of the synthetic unity of all appearances, and thereby first and originally makes experience possible as to its form. But more than this we did not have to accomplish in the transcendental deduction of the categories: to make comprehensible this relation of the understanding to sensibility, and by means of sensibility [IV 94] to all objects of experience, and hence the objective validity of its pure concepts *a priori*, and thereby to establish their origin and truth.

SUMMARY OF THE DEDUCTION

Categories are possible a priori only because we deal with appearances, not things in themselves.

If the objects with which our cognition has to do were things in themselves, we could have no concepts *a priori* of them at all. For where should we get them from? If we took them from the object (without investigating here once again how the object could become known to us), our concepts would be merely empirical and not concepts *a priori*. If we took them from ourselves, then what is merely in us cannot determine the constitution of an object distinct from our representations; that is, it cannot be a ground why there should be a thing to which something like what we have in thought belongs, rather than all this representation being empty. If, on the other hand, we have to do everywhere only with appearances, then it is not only possible but also necessary that certain concepts *a priori* should precede the empirical cognition of objects. For as appearances they make up an object that is merely in us, since a mere modification of our sensibility is not to be found outside us at all. Now

this very representation—that all these appearances, and so all objects with which we can be occupied, are all in me, that is, are determinations of my identical self—expresses as necessary a thoroughgoing unity of them in one and the same apperception. And in this unity of possible consciousness consists also the form of all cognition of objects (through which the manifold is thought as belonging to one object). So the way in which the manifold of sensible representation (intuition) belongs to one consciousness precedes all cognition of the object, as its intellectual form, and itself constitutes a formal cognition *a priori* of all objects in general, insofar as they are thought (categories). Their synthesis through the pure imagination, and the unity of all representations in relation to original apperception, precede all empirical cognition. Pure concepts of the understanding are therefore possible *a priori* IV 95 —indeed, in relation to experience, necessary—only because our cognition has to do with nothing but appearances, whose possibility lies in ourselves, and whose connection and unity (in the representation of an object) is found merely in us. This connection and unity must therefore precede all experience, and first make experience possible as to its form. And it is on this ground, the only possible one among all, that our deduction of the categories has been conducted.

Appendix III: The Paralogisms, first edition

The first version of the paralogisms, including the fourth, on the ideality of outer relations.

IV 215 A logical paralogism consists in the falsity of a syllogism with respect to its form, whatever its content may otherwise be. A transcendental paralogism, however, has a transcendental IV 216 ground for drawing a formally false conclusion. In this way a fallacy of this kind will have its ground in the nature of human reason, and will carry with it an illusion that is unavoidable, though not insoluble.[1]

We now come to a concept that was not listed above in the general list of transcendental concepts and yet must be counted among them, though without in the least altering that table or declaring it defective. This is the concept, or if one prefers, the judgment: *I think*. But one easily sees that it is the vehicle of all concepts whatever, and hence of the transcendental ones too; that it is therefore always included among them; and that it is accordingly just as transcendental, but can have no special title, because it serves only to present all thinking as belonging to consciousness. Yet however pure it is of the empirical (the impression of the senses), it still serves to distinguish two kinds of objects by the nature of our power of representation. *I*, as thinking, am an object of inner sense and am called soul. What is an object of the outer senses is called body. Accordingly the

1 Paralogism: a formally fallacious syllogism (from the Greek *paralogismos*, "false reasoning").

expression "I," as a thinking being, already signifies the object of psychology—which can be called the rational doctrine of the soul if I demand to know nothing more of the soul than what can be inferred from this concept *I*, insofar as it occurs in all thinking, independently of all experience (which determines me more closely and *in concreto*).

Now, the *rational* doctrine of the soul really is an undertaking of this kind. For if the least empirical element of my thinking, any particular perception of my inner state, were mixed in among the grounds of cognition of this science, it would no longer be a rational but an *empirical* doctrine of the soul. We thus already have before us a would-be science, built on the single proposition *I think*, whose ground or groundlessness we can quite fittingly investigate here, in keeping with the nature of a transcendental philosophy. One should not take offense at the fact that in this proposition, which expresses the perception of oneself, I do after all have an inner experience, so that the rational doctrine of the soul built upon it is never pure but is based in part on an empirical principle. For this inner perception is nothing more than mere apperception, *I think*, which even makes all transcendental concepts [IV 217] possible—concepts in which we say: I think substance, cause, and so on. For inner experience in general and its possibility, or perception in general and its relation to other perception, where no particular distinction or determination of it is empirically given, cannot be regarded as empirical cognition. It must be regarded as cognition of the empirical in general, and it belongs to the investigation of the possibility of every experience, which is certainly transcendental. The least object of perception (for example, merely pleasure or displeasure), if it were added to the general representation of self-consciousness, would at once turn rational psychology into an empirical one.

I think is therefore the sole text of rational psychology, from which it is to unfold its entire wisdom. One easily sees that this thought, if it is to be related to an object (myself), can contain nothing but transcendental predicates of that object, because

the least empirical predicate would spoil the science's rational purity and independence from all experience.

Here, however, we shall simply have to follow the guiding thread of the categories. Only, since what is first given here is a thing, I, as a thinking being, we shall not alter the order of the categories among themselves as it is presented in their table, but we shall begin here with the category of substance, through which a thing in itself is represented, and so follow their series backward. The topic of the rational doctrine of the soul, from which everything else it may contain must be derived, is accordingly as follows:

1. The soul is *substance*

2. In its quality, *simple*

3. With respect to the different times in which it exists, numerically identical, that is, *unity* (not plurality)

IV 218 4. In relation to *possible* objects in space[2].

From these elements all the concepts of the pure doctrine of the soul arise simply by combination, without recognizing the least further principle. This substance, merely as object of inner sense, gives the concept of *immateriality*; as simple substance, that of *incorruptibility*; its identity, as intellectual substance, gives *personality*; all three of these together give *spirituality*; the relation to objects in space gives *commercium* with bodies. It therefore represents the thinking substance as the principle of life in matter, that is, as soul (*anima*) and as the ground of *animality*; and this, limited by spirituality, gives *immortality*.

2 KANT'S NOTE. The reader who does not so easily guess, from these expressions in their transcendental abstraction, their psychological sense, and why the last attribute of the soul belongs to the category of existence, will find them sufficiently explained and justified in what follows. For the rest, as regards the Latin expressions that have crept in, against the taste of good style, in place of their German equivalents—both in this section and in the work as a whole—I must say in my defense that I would rather take something away from the elegance of the language than make scholastic usage the least bit harder to understand.

THE EMPTY REPRESENTATION I

The four paralogisms rest only on the I, a mere consciousness accompanying all concepts.

To these, then, four paralogisms of a transcendental doctrine of the soul are related—a doctrine falsely taken for a science of pure reason concerning the nature of our thinking being. Yet we can lay nothing at its foundation except the simple representation *I*, which is in itself wholly empty of content. Of this representation one cannot even say that it is a concept; it is a mere consciousness that accompanies all concepts. Through this I, or He, or It (the thing), which thinks, nothing further is represented than a transcendental subject of thoughts = X. It is cognized only through the thoughts that are its predicates, and apart from them we can never have the least concept of it. We therefore revolve around it in a constant circle, since we must always already make use of its representation in order to judge anything about it. This is an inconvenience [IV 219] that cannot be separated from it, because consciousness in itself is not so much a representation distinguishing a particular object as a form of representations in general, insofar as they are to be called cognition; for of cognition alone can I say that through it I *think* something.

But it must seem strange from the very start that the condition under which I think at all, and which is therefore merely a characteristic of my subject, should at the same time be valid for everything that thinks; and that we can presume to base an apodictic and universal judgment on a seemingly empirical proposition—namely, that everything that thinks is constituted as the pronouncement of self-consciousness declares it to be in me. The reason for this, however, lies in the fact that we must necessarily ascribe to things *a priori* all the properties that make up the conditions under which alone we think them. Now, I can have not the least representation of a thinking being through any outer experience, but only through self-consciousness. Such

objects are therefore nothing more than the transfer of this consciousness of mine to other things, which only in this way are represented as thinking beings. The proposition "I think," however, is taken here only problematically—not insofar as it may contain a perception of an existence (the Cartesian *cogito, ergo sum*), but in its mere possibility, in order to see what properties may flow from so simple a proposition to its subject (whether or not any such subject exists).

If more than the *cogito* lay at the ground of our pure rational cognition of thinking beings in general—if we also enlisted observations about the play of our thoughts and the natural laws of the thinking self to be drawn from them—then an empirical psychology would arise. It would be a kind of *physiology* of inner sense, and might perhaps serve to explain the appearances of inner sense, but it could never serve to disclose properties that do not belong to possible experience at all (such as that of the simple), nor to teach anything *apodictically* about thinking beings in general that concerns their nature. It would therefore not be a *rational* psychology.

Now, since the proposition *I think* (taken problematically) contains the form of every judgment of the understanding whatever, and accompanies all categories as their vehicle, it is clear that inferences from it can contain a merely IV 220 transcendental use of the understanding, one that rejects every admixture of experience; and after what we have shown above, we can form no favorable concept of its progress in advance. We shall therefore follow it with a critical eye through all the predicaments of the pure doctrine of the soul.

FIRST PARALOGISM: OF SUBSTANTIALITY

The syllogism concluding that I, as a thinking being, am substance.

That whose representation is the *absolute subject* of our judgments, and which therefore cannot be used as the determination of another thing, is *substance*.

I, as a thinking being, am the absolute *subject* of all my possible judgments, and this representation of myself cannot be used as the predicate of any other thing.

Therefore I, as a thinking being (soul), am *substance*.

CRITIQUE OF THE FIRST PARALOGISM

The I is only the logical subject of thought; nothing about the soul's persistence follows.

In the analytic part of the Transcendental Logic we showed that pure categories (and among them that of substance too) have in themselves no objective significance at all unless an intuition underlies them, to whose manifold they can be applied as functions of synthetic unity. Without that, they are merely functions of a judgment without content. Of any thing whatever I can say that it is substance, insofar as I distinguish it from mere predicates and determinations of things. Now, in all our thinking the *I* is the subject in which thoughts inhere only as determinations, and this I cannot be used as the determination of another thing. Everyone must therefore necessarily regard himself as the substance, and his thinking merely as accidents of his existence and determinations of his state.

But what use am I now to make of this concept of a substance? That I, as a thinking being, *persist* for myself and do not naturally *either arise* or *pass away*—this I can by no means infer from it. And yet that is the only thing for which the concept of the substantiality of my thinking subject could be of use to me; without that, I could very well do without it altogether.

IV 221 So far are we from being able to infer these properties from the mere pure category of a substance that, on the contrary, we must take as our basis the persistence of a given object from experience if we want to apply to it the empirically usable concept of a *substance*. But in our proposition we took no experience as our basis; we inferred solely from the concept of the relation that all thinking has to the I as the common subject in which it inheres. Nor, even if we set out to do so, could we estab-

lish such persistence by any secure observation. For the I is indeed in all thoughts; but with this representation there is not bound up the least intuition that would distinguish it from other objects of intuition. One can therefore perceive that this representation recurs again and again in all thinking, but not that it is a standing and abiding intuition in which the thoughts (as changeable) come and go.

From this it follows that the first syllogism of transcendental psychology palms off on us what is only a supposed new insight, by passing off the constant logical subject of thinking as the cognition of the real subject of inherence. Of this real subject we have not, and cannot have, the least knowledge. For consciousness is the one thing that makes all representations into thoughts, and in which, therefore, all our perceptions must be found as in the transcendental subject; and beyond this logical meaning of the I we have no knowledge of the subject in itself that lies at the ground of this, as of all thoughts, as their substratum. Nevertheless, the proposition *the soul is substance* can very well be allowed to stand, provided one accepts that this concept of ours does not take us the least bit further, and cannot teach any of the usual conclusions of the sophistical doctrine of the soul—for example, the soul's everlasting duration through all alterations and even through a human being's death—and that it therefore signifies a substance only in the idea, not in reality.

SECOND PARALOGISM: OF SIMPLICITY

The syllogism concluding that the soul, whose action cannot be composite, is simple.

That thing whose action can never be regarded as the concurrence of many acting things is *simple*.

Now, the soul, or the thinking I, is such a thing. Therefore, etc.

CRITIQUE OF THE SECOND PARALOGISM

The unity of the I is only logical; it cannot distinguish the soul from matter's unknown substratum.

IV 222 This is the Achilles of all the dialectical inferences of the pure doctrine of the soul. It is not merely a sophistical game that some dogmatist contrives to give his assertions a fleeting plausibility, but an inference that seems to withstand even the sharpest examination and the greatest scruples of inquiry. Here it is.[3]

Every *composite* substance is an aggregate of many, and the action of a composite, or what inheres in it as such, is an aggregate of many actions or accidents distributed among the multitude of substances. Now, an effect arising from the concurrence of many acting substances is indeed possible if this effect is merely external (as, for example, the motion of a body is the combined motion of all its parts). But with thoughts, as accidents belonging internally to a thinking being, it is otherwise. For suppose the composite were thinking: then each part of it would contain a part of the thought, and only all of them taken together would contain the whole thought. But this is contradictory. For since representations distributed among different beings (for example, the single words of a verse) never make up a whole thought (a verse), the thought cannot inhere in a composite as such. It is therefore possible only in *one* substance, which is not an aggregate of many and is thus absolutely simple[4].

The so-called *nervus probandi* of this argument lies in the proposition that many representations must be contained in the absolute unity of the thinking subject in order to make up one thought. But no one can prove this proposition *from concepts*. For

3 "Achilles": a traditional name for an argument thought invincible, after Zeno's paradox of Achilles and the tortoise.

4 KANT'S NOTE. It is very easy to give this proof the usual scholastically correct precision of dress. But for my purpose it is enough to set out the bare ground of proof, even if only in a popular way.

how would he even begin to do so? The proposition "a thought can only be the effect of the absolute unity of the thinking being" cannot be treated as analytic. For the unity of the thought, which consists of many representations, is collective, and as far as mere concepts [IV 223] go, it can refer just as well to the collective unity of the substances cooperating in it (as the motion of a body is the composite motion of all its parts) as to the absolute unity of the subject.[5] By the rule of identity, therefore, the necessity of presupposing a simple substance in the case of a composite thought cannot be seen. But that this same proposition should be cognized synthetically and completely *a priori* from mere concepts—no one who understands the ground of the possibility of synthetic propositions *a priori*, as we set it out above, will venture to maintain.

But it is also impossible to derive this necessary unity of the subject, as the condition of the possibility of every thought, from experience. For experience gives us to cognize no necessity, not to mention that the concept of absolute unity lies far beyond its sphere. Where, then, do we get this proposition on which the whole psychological syllogism rests?

It is evident that if one wants to represent a thinking being, one must put oneself in its place, and so substitute one's own subject for the object one wanted to consider (which is not the case in any other kind of inquiry). And it is evident that we require absolute unity of the subject for a thought only because otherwise it could not be said: I think (the manifold in one representation). For although the whole of the thought could be divided and distributed among many subjects, the subjective *I* cannot be divided and distributed, and this is what we presuppose in all thinking.

Here, then, just as in the previous paralogism, the formal proposition of apperception, *I think*, remains the entire ground on which rational psychology ventures to extend its cognitions. This proposition, to be sure, is not an experience but the form of apperception, which attaches to every experience and precedes

5 *Nervus probandi* (Latin): "the sinew of the proof," its decisive premise.

it. Nevertheless it must always be regarded, with respect to a possible cognition in general, only as a *merely subjective condition* of that cognition. We wrongly make it into the condition of the possibility of a cognition of objects, namely into a concept of a thinking being in general, because we cannot represent such a being to ourselves without putting ourselves, with the formula of our consciousness, in the place of every other intelligent being.

IV 224 But the simplicity of myself (as soul) is not really *inferred* from the proposition "I think" at all; it already lies in every thought itself. The proposition *I am simple* must be regarded as an immediate expression of apperception, just as the supposed Cartesian inference *cogito, ergo sum* is in fact tautological, since the *cogito* (*sum cogitans*) asserts actuality immediately. *I am simple*, however, means nothing more than that this representation *I* does not contain the least manifoldness within itself, and that it is absolute (though merely logical) unity.[6]

The famous psychological proof is thus based merely on the indivisible unity of a representation that only governs the verb with respect to a person. But it is evident that the subject of inherence is designated only transcendentally by the I attached to the thought, without noting the least property of it, or cognizing or knowing anything about it at all. It means a something in general (transcendental subject), whose representation must certainly be simple, precisely because one determines nothing whatever in it; and surely nothing can be represented more simply than through the concept of a mere something. But the simplicity of the representation of a subject is not, for that reason, a cognition of the simplicity of the subject itself. For its properties are entirely abstracted from when it is designated merely by the expression "I," which is wholly empty of content (and which I can apply to every thinking subject).

This much is certain: through the I, I always think an absolute but logical unity of the subject (simplicity); but not that I thereby cognize the actual simplicity of my subject. Just as the

6 *Sum cogitans* (Latin): "I am thinking," i.e., I exist as thinking.

proposition "I am substance" signified nothing but the pure category, of which I can make no (empirical) use *in concreto*, so I am also permitted to say: I am a simple substance, that is, one whose representation never contains a synthesis of the manifold. But this concept, or this proposition, teaches us not the least thing about myself as an object of experience. For the concept of substance is itself used only as a function of synthesis, without an underlying intuition and hence without an object, and it holds only of the condition of our cognition, not of any object that could be specified. Let us put the supposed usefulness of this proposition to the test.

IV 225 Everyone must admit that the assertion of the simple nature of the soul is of some value only insofar as I can thereby distinguish this subject from all matter and consequently exempt it from the perishability to which matter is always subject. This is also, quite properly, the use for which the proposition above is designed; that is why it is mostly expressed as: the soul is not corporeal. Suppose I can show that, even if one grants this cardinal proposition of the rational doctrine of the soul full objective validity in the pure sense of a mere judgment of reason (from pure categories)—everything that thinks is simple substance—still not the least use can be made of this proposition with regard to the soul's dissimilarity to or kinship with matter. Then this will be just as if I had banished this supposed psychological insight to the field of mere ideas, which lack the reality of objective use.

In the Transcendental Aesthetic we proved beyond denial that bodies are mere appearances of our outer sense and not things in themselves. Accordingly we can rightly say that our thinking subject is not corporeal: that is, since it is represented by us as an object of inner sense, it cannot, insofar as it thinks, be an object of the outer senses, that is, an appearance in space. This amounts to saying that thinking beings, as such, can never be met with among outer appearances; or that we cannot intuit their thoughts, their consciousness, their desires, and so on, externally, for all of this belongs before inner sense. And in fact

this argument seems to be the natural and popular one, which even the most common understanding seems to have hit upon from time immemorial, and by which it began very early to regard souls as beings entirely different from bodies.

Extension, impenetrability, cohesion and motion—in short, everything that the outer senses can supply to us—are not thoughts, feeling, inclination or resolution, and will not contain such things, since these are nowhere objects of outer intuition. Even so, that something which underlies outer appearances, which so affects our sense that it receives the representations of space, matter, shape and so on—this something, considered as noumenon (or better, as transcendental object), [IV 226] could after all also be at the same time the subject of thoughts, although through the way our outer sense is affected by it we receive no intuition of representations, will and so on, but merely of space and its determinations. But this something is not extended, not impenetrable, not composite, because all these predicates concern only sensibility and its intuition, insofar as we are affected by such objects (which are otherwise unknown to us). These expressions, however, do not at all make known what kind of object it is, but only that the predicates of outer appearances cannot be ascribed to it, as an object considered in itself without relation to the outer senses. The predicates of inner sense, representations and thinking, on the other hand, do not contradict it. Accordingly, even if the simplicity of its nature is granted, the human soul is not sufficiently distinguished from matter as regards matter's *substratum*, if one considers matter (as one should) merely as appearance.

If matter were a thing in itself, then as a composite being it would be entirely different from the soul as a simple one. But it is merely outer appearance, whose substratum is not cognized through any predicates that could be specified. So I can well assume of this substratum that it is simple in itself, although, in the way it affects our senses, it produces in us the intuition of the extended and hence of the composite. And I can assume that the substance to which extension belongs with respect to our

outer sense has thoughts dwelling in it in itself, which can be represented with consciousness through its own inner sense. In this way the very same thing that in one respect is called corporeal would in another respect be at the same time a thinking being, whose thoughts we cannot intuit, though we can intuit their signs in appearance. We would thereby drop the expression that only souls (as particular kinds of substances) think. We would rather say, as people usually do, that human beings think: that is, the very same thing that as outer appearance is extended is inwardly (in itself) a subject that is not composite but simple, and that thinks.

But without permitting such hypotheses, one can observe in general that if by soul I understand a thinking being in itself, then the question is already improper in itself: whether, namely, it is of the same kind as matter [IV 227] (which is not a thing in itself at all, but only a kind of representation in us) or not. For it goes without saying that a thing in itself is of a different nature from the determinations that merely make up its state.

But if we compare the thinking I not with matter but with the intelligible that underlies the outer appearance we call matter, then, since we know nothing whatever of the latter, we also cannot say that the soul is inwardly distinct from it in any respect.

Simple consciousness is accordingly no knowledge of the simple nature of our subject, insofar as the subject is supposed thereby to be distinguished from matter as a composite being.

But if this concept is of no help in determining what is peculiar and distinctive in its nature in the one case where it is usable—namely, in comparing myself with objects of *outer* experience—then one may still claim to know that the thinking *I*, the soul (a name for the transcendental object of inner sense), is simple. This expression nonetheless has no use at all that extends to actual objects, and so it cannot extend our cognition in the least.

Thus the whole of rational psychology falls along with its chief support. Here, as anywhere else, we can hope to spread our insights through mere concepts without relation to possible

experience just as little as ever—and still less through the mere subjective form of all our concepts, consciousness—especially since even the fundamental concept of *a simple nature* is such that it can nowhere be met with in any experience, so that there is no way at all to arrive at it as an objectively valid concept.

THIRD PARALOGISM: OF PERSONALITY

The syllogism concluding that the soul, conscious of its identity over time, is a person.

What is conscious of the numerical identity of itself at different times is to that extent a person. Now, the soul is, etc.

Therefore it is a person.

CRITIQUE OF THE THIRD PARALOGISM

Identity of consciousness is formal and proves nothing about the numerical identity of the subject.

IV 228 If I want to cognize the numerical identity of an outer object through experience, I shall attend to what is persistent in that appearance, to which, as subject, everything else relates as determination, and I shall note the identity of the former through the time in which the latter changes. But I am an object of inner sense, and all time is merely the form of inner sense. Consequently I relate each and every one of my successive determinations to the numerically identical self in all time, that is, in the form of the inner intuition of myself. On this footing the personality of the soul would have to be regarded not even as inferred, but as a completely identical proposition of self-consciousness in time; and that is also why it holds *a priori*. For it really says nothing more than this: in the whole time in which I am conscious of myself, I am conscious of this time as belonging to the unity of my self. And it is all the same whether I say "this whole time is in me, as individual unity" or "I am to be found with numerical identity in all of this time."

The identity of the person is therefore unfailingly to be found in my own consciousness. But if I consider myself from the

point of view of another (as an object of his outer intuition), this outer observer first considers *me* in time; for in apperception, time is properly represented only *in me*. So although he grants the I that accompanies all representations at all times in *my* consciousness, and does so with complete identity, he will still not infer from it the objective persistence of myself. For since the time in which the observer places me is then not the time found in my own sensibility but the time found in his, the identity that is necessarily bound up with my consciousness is not for that reason bound up with his, that is, with the outer intuition of my subject.

The identity of the consciousness of myself at different times is therefore only a formal condition of my thoughts and their connection. It does not prove at all the numerical identity of my subject. In my subject, despite the logical identity of the I, such a change may have taken place as does not allow its identity IV 229 to be retained—while still allowing it to be assigned the same-sounding I, which in every other state, even in a transformation of the subject, might always retain the thought of the preceding subject and so also hand it on to the following one.[7]

Although the proposition of some ancient schools, that everything is *in flux* and nothing in the world is *persistent* and abiding, cannot hold as soon as one assumes substances, it is still not refuted by the unity of self-consciousness. For we ourselves cannot judge from our consciousness whether or not we are persistent as souls, because we count as part of our

7 KANT'S NOTE. An elastic ball that strikes an equal one in a straight line communicates to it its whole motion, and hence its whole state (if one looks only at positions in space). Now assume, by analogy with such bodies, substances of which one instilled representations, together with the consciousness of them, into another. Then a whole series of them can be conceived, of which the first communicated its state, together with its consciousness, to the second; the second communicated its own state, together with that of the previous substance, to the third; and the third likewise communicated the states of all the previous ones, together with its own and their consciousness. The last substance would thus be conscious of all the states of the substances altered before it as its own, because those states, together with the consciousness of them, had been transferred into it. And in spite of this it would not have been the very same person in all these states.

identical self only what we are conscious of. And so we must certainly judge necessarily that we are the very same throughout the whole time of which we are conscious.[8] From the standpoint of a stranger, however, we cannot yet declare this valid. For since the only persistent appearance we find in the soul is the representation I, which accompanies and connects them all, we can never make out whether this I (a mere thought) is not just as much in flux as the other thoughts that are chained together by it.

It is remarkable, though, that the personality of the soul, and its presupposition, persistence, and hence the soul's substantiality, must only now be proved. For if we could presuppose these, then there would follow from them, not indeed the continuation of consciousness, but still the possibility of an enduring consciousness in an abiding subject. And that is already sufficient for personality, which does not itself immediately cease just because its activity is perhaps interrupted for a time. But this persistence is given to us by nothing prior to the numerical identity IV 230 of ourselves, which we infer from identical apperception; rather, it is first inferred from that identity. (And if things went properly, only after persistence would the concept of substance have to follow, the only concept of substance that is empirically usable.) Now, since this identity of the person by no means follows from the identity of the I in the consciousness of all the time in which I cognize myself, the substantiality of the soul could not be based on it above either.

Meanwhile, like the concept of substance and of the simple, the concept of personality too can remain—insofar as it is merely transcendental, that is, the unity of a subject that is otherwise unknown to us, but in whose determinations there is a thoroughgoing connection through apperception. And to this extent the concept is also necessary and sufficient for practical use. But we can never count on it as an extension of our self-cognition through pure reason, which dangles before us an uninter-

8 An allusion to Heraclitus (fl. c. 500 BC) and his followers, for whom "everything flows."

rupted continuation of the subject from the mere concept of the identical self. For this concept always revolves around itself, and does not advance us with respect to a single question aimed at synthetic cognition. What matter may be as a thing in itself (transcendental object) is indeed wholly unknown to us; yet its persistence as appearance can still be observed, since it is represented as something external. But if I want to observe the mere I amid the change of all representations, I have no other *correlate* for my comparisons than myself again, with the universal conditions of my consciousness. So I can give nothing but tautological answers to all questions: for I substitute my concept and its unity for the properties that belong to me myself as object, and presuppose what one wanted to know.

FOURTH PARALOGISM: OF IDEALITY (OF OUTER RELATION)

The syllogism concluding that the existence of all objects of the outer senses is doubtful.

That whose existence can only be inferred as a cause of given perceptions has only a doubtful existence.

Now, all outer appearances are of such a kind that their existence cannot be immediately perceived, but can only be inferred as the cause of given perceptions.

IV 231 Therefore the existence of all objects of the outer senses is doubtful. This uncertainty I call the ideality of outer appearances, and the doctrine of this ideality is called *idealism*; in comparison with it, the assertion of a possible certainty of objects of the outer senses is called *dualism*.

CRITIQUE OF THE FOURTH PARALOGISM

Kant contrasts transcendental idealism, which is empirical realism, with transcendental realism and empirical idealism.

First, let us submit the premises to examination. We can rightly maintain that only what is in ourselves can be perceived immediately, and that my own existence alone can be the object of a mere perception. So the existence of an actual object outside me

(if this word is taken in an intellectual sense) is never given directly in perception. It can only be thought in addition to perception, which is a modification of inner sense, as its outer cause, and hence inferred. That is why Descartes, too, rightly restricted all perception in the narrowest sense to the proposition: I (as a thinking being) am. For it is clear that, since what is outer is not in me, I cannot meet with it in my apperception, and hence not in any perception either, which is really only the determination of apperception.

So I cannot properly perceive outer things, but can only infer their existence from my inner perception, by regarding it as the effect of which something outer is the proximate cause. But the inference from a given effect to a determinate cause is always uncertain, because the effect may have arisen from more than one cause. Accordingly, in the relation of perception to its cause it always remains doubtful whether the cause is internal or external: whether all so-called outer perceptions are not a mere play of our inner sense, or whether they relate to actual outer objects as their cause. At least the existence of the latter is only inferred and runs the risk of all inferences, whereas the object of inner sense (I myself with all my representations) is perceived immediately, and its existence admits of no doubt whatever.

IV 232 By an *idealist*, therefore, one must not understand someone who denies the existence of outer objects of the senses, but only someone who does not grant that it is cognized through immediate perception, and who concludes from this that we can never become fully certain of their actuality through all possible experience.

Now, before I present our paralogism in its deceptive illusion, I must first remark that one must necessarily distinguish a twofold idealism, the transcendental and the empirical. By the *transcendental idealism* of all appearances I understand the doctrine according to which we regard them, one and all, as mere representations and not as things in themselves, and according to which time and space are only sensible forms of our intuition,

not determinations given for themselves or conditions of objects as things in themselves. Opposed to this idealism is a *transcendental realism*, which regards time and space as something given in itself (independently of our sensibility). The transcendental realist therefore represents outer appearances (if their actuality is granted) as things in themselves that exist independently of us and our sensibility, and so would be outside us even according to pure concepts of the understanding. It is really this transcendental realist who afterward plays the empirical idealist. Having falsely presupposed of objects of the senses that, if they are to be outer, they must have their existence in themselves even without senses, he then finds from this point of view that all our representations of the senses are insufficient to make their actuality certain.

The transcendental idealist, on the other hand, can be an empirical realist, and hence, as he is called, a *dualist*: that is, he can grant the existence of matter without going beyond mere self-consciousness, and without assuming anything more than the certainty of the representations in me, hence the *cogito, ergo sum*. For since he lets this matter, and even its inner possibility, count merely as appearance, which is nothing when separated from our sensibility, matter is for him only a kind of representations (intuition). These are called outer, not as if they related to objects that are outer *in themselves*, but because they relate perceptions to space, in which all things are outside one another, while space itself is in us.

IV 233 Now, we declared ourselves for this transcendental idealism at the very beginning. In our doctrine, therefore, all hesitation disappears about accepting the existence of matter on the testimony of our mere self-consciousness, and so declaring it proven, just as the existence of myself as a thinking being is. For I am, after all, conscious of my representations; so these exist, and so do I, who have these representations. But outer objects (bodies) are merely appearances, and hence nothing but a kind of my representations, whose objects are something only through these representations and are nothing apart from them.

Thus outer things exist just as much as I myself exist, and both on the immediate testimony of my self-consciousness—only with this difference: the representation of myself as the thinking subject is related merely to inner sense, whereas the representations that designate extended beings are related to outer sense as well. With regard to the actuality of outer objects I have just as little need to draw an inference as with regard to the actuality of the object of my inner sense (my thoughts). For on both sides they are nothing but representations, whose immediate perception (consciousness) is at the same time a sufficient proof of their actuality.

The transcendental idealist is therefore an empirical realist, and grants to matter as appearance an actuality that need not be inferred but is immediately perceived. Transcendental realism, by contrast, necessarily gets into difficulties and finds itself compelled to make room for empirical idealism. For it regards the objects of the outer senses as something distinct from the senses themselves, and mere appearances as self-subsistent beings located outside us. And then, of course, however well we are conscious of our representation of these things, it is still far from certain that if the representation exists, the object corresponding to it exists too. In our system, on the other hand, these outer things—matter, namely—in all their shapes and alterations are nothing but mere appearances, that is, representations in us, of whose actuality we are immediately conscious.

Now since, as far as I know, all the psychologists who adhere to empirical idealism are transcendental realists, they have certainly proceeded quite consistently in granting empirical idealism great importance, [IV 234] as one of the problems from which human reason hardly knows how to extricate itself. For in fact, if one regards outer appearances as representations produced in us by their objects, taken as things found outside us in themselves, then it is impossible to see how one could cognize the existence of these things otherwise than by an inference from the effect to the cause; and in such an inference it must always remain doubtful whether the cause is in us or outside us. Now

one can indeed grant that something which may be outside us in the transcendental sense is the cause of our outer intuitions. But this is not the object we understand by the representations of matter and of corporeal things; for these are merely appearances, that is, mere kinds of representation, which are always found only in us, and whose actuality rests on immediate consciousness, just as the consciousness of my own thoughts does. The transcendental object is equally unknown with regard to inner and to outer intuition. But it is not this object that is in question; it is the empirical object, which is called an *outer* object when it is represented in *space*, and an *inner* object when it is represented solely in *relations of time*. Space and time, however, are both to be found only *in us*.

The expression *outside us*, however, carries with it an unavoidable ambiguity, since it sometimes means something that exists as a *thing in itself* distinct from us, and sometimes something that merely belongs to outer *appearance*. In order to put this concept beyond uncertainty in the latter meaning—the one in which the psychological question about the reality of our outer intuition is really meant—we shall distinguish *empirically external* objects from those that might be so called in the transcendental sense by calling them outright things *that are to be found in space*.

Space and time are indeed representations *a priori*, which dwell in us as forms of our sensible intuition even before any actual object has determined our sense through sensation, so that it may be represented under those sensible relations. But this material or real element, this something that is to be intuited in space, necessarily presupposes perception; and independently of perception, which indicates the actuality of something in space, it cannot be invented or produced by any imagination. Sensation, then, is what [IV 235] designates an actuality in space and time, according as it is referred to the one or the other kind of sensible intuition. Once sensation is given (which, when it is applied to an object in general without determining it, is called perception), then by means of its manifoldness many an

object can be invented in imagination that has no empirical place in space or time outside the imagination. This is indubitably certain. Whether one takes the sensations of pleasure and pain, or those of the outer senses, such as colors, heat, etc., perception is that through which the material for thinking objects of sensible intuition must first be given. This perception, therefore (to stay for the present with outer intuitions only), represents something actual in space. For, first, perception is the representation of an actuality, just as space is the representation of a mere possibility of coexistence. Second, this actuality is represented before outer sense, that is, in space. Third, space itself is nothing but mere representation; hence only what is represented[9] in it can count as actual in it, and conversely, what is given in it, that is, represented through perception, is also actual in it. For if it were not actual in it, that is, immediately given through empirical intuition, it could not be invented either, since the real element of intuitions cannot be thought up *a priori* at all.

All outer perception, therefore, immediately proves something actual in space, or rather is the actual itself; and to that extent empirical realism is beyond doubt, that is, something actual in space corresponds to our outer intuitions. Space itself, of course, with all its appearances as representations, is only in me; but in this space the real, or the material of all objects of outer intuition, is nonetheless actually given, independently of all invention. [IV 236] And it is also impossible that anything *outside us* (in the transcendental sense) should be given in *this space*, because space itself is nothing outside our sensibility. So even the strictest idealist cannot demand that we prove that the

9 KANT'S NOTE. One must take careful note of this paradoxical but correct proposition: that there is nothing in space except what is represented in it. For space is itself nothing but representation; consequently whatever is in it must be contained in the representation, and there is nothing whatever in space except insofar as it is actually represented in it. That a thing can exist only in the representation of it is a proposition that must certainly sound strange; but here it loses its offensiveness, because the things we are dealing with are not things in themselves but only appearances, that is, representations.

object outside us (in the strict meaning) corresponds to our perception. For if there were any such thing, it still could not be represented and intuited as outside us, because this presupposes space, and actuality in space, as a mere representation, is nothing other than perception itself. The real in outer appearances is therefore actual only in perception and cannot be actual in any other way.

Now cognition of objects can be produced from perceptions either through a mere play of imagination or by means of experience. And here, certainly, deceptive representations can arise, to which the objects do not correspond, and in which the delusion is to be ascribed sometimes to a deception of the imagination (in dreams), sometimes to a misstep of the power of judgment (in the so-called trickery of the senses). To escape false illusion here, one proceeds according to the rule: *Whatever is connected with a perception according to empirical laws is actual.* But this delusion, as well as the safeguard against it, concerns idealism and dualism alike, since the only issue here is the form of experience. To refute empirical idealism, as a false scruple about the objective reality of our outer perceptions, it is already sufficient that outer perception immediately proves an actuality in space. This space, although in itself it is only the mere form of representations, nonetheless has objective reality with regard to all outer appearances (which are likewise nothing but mere representations). It is equally sufficient that without perception even invention and dreaming would not be possible, so that our outer senses, as regards the *data* from which experience can arise, have their actual corresponding objects in space.

The *dogmatic idealist* would be one who denies the existence of matter; the *skeptical* idealist, one who doubts it because he holds it to be unprovable. The former can be so only because he believes he finds contradictions in the possibility of a matter in general, and with him we have nothing to do as yet. The following section [IV 237] on dialectical inferences, which presents reason in its internal conflict over the concepts of the possibility of what belongs in the connection of experience, will remedy this

difficulty too. The skeptical idealist, however, who merely challenges the ground of our assertion, and declares insufficient our persuasion of the existence of matter, which we believe we ground on immediate perception, is a benefactor of human reason to this extent: he compels us to keep our eyes wide open even at the smallest step of common experience, and not to take straight into our possession, as rightfully acquired, what we have perhaps only obtained surreptitiously. The benefit that these idealist objections bring here now becomes plainly evident. They forcibly drive us—if we do not want to become entangled in our most common assertions—to regard all perceptions, whether they are called inner or outer, merely as a consciousness of what attaches to our sensibility, and to regard the outer objects of these perceptions not as things in themselves but only as representations. Of these we can become immediately conscious, as of any other representation; but they are called outer because they attach to the sense we call outer sense, whose intuition is space. Space, however, is itself nothing but an inner kind of representation, in which certain perceptions are connected with one another.

If we let outer objects count as things in themselves, then it is absolutely impossible to comprehend how we could arrive at cognition of their actuality outside us, since we rely merely on the representation that is in us. For one cannot have sensations outside oneself, but only in oneself; and the whole of self-consciousness therefore supplies nothing but our own determinations. Skeptical idealism thus compels us to seize the only refuge left to us, namely the ideality of all appearances, which we established in the Transcendental Aesthetic independently of these consequences, which we could not then foresee. If one now asks whether, as a result, dualism alone holds in the doctrine of the soul, the answer is: Certainly! But only in the empirical sense. That is, in the connection of experience, matter, as substance in appearance, is actually given to outer sense, just as the thinking I, likewise as substance in appearance, is given before inner sense. And appearances on both sides must also be

connected among themselves according to the rules that this category introduces into the connection of our outer [IV 238] as well as inner perceptions to form one experience. But if one wanted to extend the concept of dualism, as usually happens, and take it in the transcendental sense, then neither it nor the opposing *pneumatism* on the one hand, or *materialism* on the other, would have the slightest ground. For one would then miss the proper determination of one's concepts, and take the difference in the way of representing objects—objects that remain unknown to us as to what they are in themselves—for a difference in these things themselves. I, represented through inner sense in time, and objects in space outside me, are indeed specifically quite distinct appearances; but that does not mean they are thought as different things. The *transcendental object* that underlies outer appearances, and likewise that which underlies inner intuition, is neither matter nor a thinking being in itself, but a ground, unknown to us, of the appearances that supply the empirical concept of the former kind as well as of the latter.

If, then, as the present critique evidently compels us to do, we remain true to the rule established above—not to push our questions any further than possible experience can supply us with their object—then it will not even occur to us to inquire into the objects of our senses as to what they may be in themselves, that is, without any relation to the senses. But if the psychologist takes appearances for things in themselves, then whether as a materialist he admits into his doctrine matter alone, or as a spiritualist merely thinking beings (namely according to the form of our inner sense), or as a dualist both, as things existing by themselves, he is still always held in suspense by a misunderstanding, reasoning sophistically about how that may exist in itself which is no thing in itself at all, but only the appearance of a thing in general.

REFLECTION ON PURE PSYCHOLOGY AS A WHOLE

Rational psychology fails as a science but has a negative use against materialism.

If we compare the *doctrine of the soul*, as the physiology of inner sense, with the *doctrine of body*, as a physiology of the objects of the outer [IV 239] senses, we find, besides the fact that in both much can be cognized empirically, this remarkable difference: in the latter science much can be cognized *a priori* from the mere concept of an extended, impenetrable being, but in the former nothing at all can be cognized synthetically *a priori* from the concept of a thinking being. The reason is this. Although both are appearances, the appearance before outer sense has something fixed or abiding, which supplies a substratum underlying the changeable determinations, and hence a synthetic concept, namely that of space and of an appearance in it. Time, by contrast, which is the sole form of our inner intuition, has nothing abiding, and so gives us cognition only of the change of determinations, not of the determinable object. For in what we call the soul everything is in continual flux, and nothing abides except perhaps (if one absolutely insists) the I—which is so simple only because this representation has no content, and hence no manifold. That is also why it seems to represent, or better put, to designate, a simple object. This *I* would have to be an intuition which, since it would be presupposed in thinking in general (prior to all experience), would as an *a priori* intuition supply synthetic propositions—if it were to be possible to achieve a pure rational cognition of the nature of a thinking being in general. But this I is as little an intuition as it is a concept of any object; it is the mere form of consciousness, which can accompany both kinds of representations and thereby elevate them to cognitions—provided, that is, that something else is also given in intuition that furnishes material for a representation of an object. So the whole of rational psychology collapses, as a science that surpasses all the powers of human reason, and noth-

ing is left for us but to study our soul by the guiding thread of experience, and to keep within the limits of questions that go no further than possible inner experience can set out their content.

But although it has no use as an ampliative cognition, and is moreover composed of nothing but paralogisms, one still cannot deny it an important negative use, if it is to count as nothing more than a critical treatment of our dialectical inferences—those, indeed, of common and natural reason.

IV 240 Why do we need a doctrine of the soul grounded merely on pure principles of reason? Without doubt chiefly in order to secure our thinking self against the danger of materialism. But this is accomplished by the rational concept of our thinking self that we have given. For far from leaving any fear that, if matter were taken away, all thinking and even the existence of thinking beings would thereby be abolished, this concept rather shows clearly that if I take away the thinking subject, the whole corporeal world must vanish, since it is nothing but the appearance in the sensibility of our subject and a kind of its representations.

It is true that I do not thereby cognize this thinking self any better as regards its properties; nor can I have insight into its persistence, or even into the independence of its existence from whatever transcendental substratum of outer appearances there may be; for the latter is just as unknown to me as the former. Yet it is still possible that I might find cause, from some source other than merely speculative grounds, to hope for an independent existence of my thinking nature, one that persists through every possible change of my state. So much is already gained if, while freely confessing my own ignorance, I can nonetheless repel the dogmatic attacks of a speculative opponent, and show him that he can never know more about the nature of my subject, so as to deny my expectations their possibility, than I can know so as to hold on to them.

SOUL AND BODY, BIRTH AND DEATH

Kant dissolves the questions of the soul's community with body, its beginning and its end.

On this transcendental illusion of our psychological concepts three further dialectical questions are based, which constitute the real goal of rational psychology and can be decided in no other way than through the above investigations. They concern: 1) the possibility of the community of the soul with an organic body, that is, animality and the state of the soul in the life of the human being; 2) the beginning of this community, that is, the soul in and before the birth of the human being; 3) the end of this community, that is, the soul in and after the death of the human being (the question of immortality).

Now I maintain that all the difficulties that people believe they find in these questions—and with which, as dogmatic objections, they seek to give themselves the air of a deeper insight into the nature of things than common understanding can have—rest on a mere [IV 241] deception. Through it one hypostatizes what exists merely in thought and takes it, in the very same quality, as an actual object outside the thinking subject: namely, one takes extension, which is nothing but appearance, for a property of outer things that subsists even without our sensibility, and motion for their effect, which also actually takes place in itself outside our senses. For matter, whose community with the soul arouses such great misgivings, is nothing other than a mere form, or a certain way of representing an unknown object, through the intuition that is called outer sense. There may well be something outside us to which this appearance, which we call matter, corresponds; but in the same quality, as appearance, it is not outside us, but merely a thought in us, although this thought, through the sense just named, represents it as being found outside us. Matter, therefore, does not mean a kind of substance so completely distinct and heterogeneous from the object of inner sense (the soul), but only the dissimilar-

ity of the appearances of objects (which in themselves are unknown to us) whose representations we call outer, in comparison with those we assign to inner sense—although these belong just as much to the thinking subject alone as all other thoughts do. They merely have this deceptive feature: since they represent objects in space, they seem, as it were, to detach themselves from the soul and to hover outside it. Yet even the space in which they are intuited is nothing but a representation, whose counterpart in the same quality cannot be found outside the soul at all. Now the question is no longer about the community of the soul with other known and alien substances outside us, but merely about the connection of the representations of inner sense with the modifications of our outer sensibility, and how these may be connected with one another according to constant laws, so that they hang together in one experience.

As long as we hold inner and outer appearances together in experience as mere representations, we find nothing absurd, nothing that would make the community of the two kinds of sense seem strange. But as soon as we hypostatize outer appearances—regarding them no longer as representations but, *in the same quality in which they are in us,* also as *things subsisting by themselves outside us*—and refer to our thinking subject their IV 242 actions, which they display as appearances in relation to one another, then we have a character of efficient causes outside us that will not square with their effects in us. For the former relates merely to the outer senses, the latter to inner sense; and these, although united in one subject, are nevertheless extremely heterogeneous. There we have no outer effects other than alterations of place, and no forces other than mere strivings that issue in relations in space as their effects. In us, however, the effects are thoughts, among which no relation of place, no motion, shape, or spatial determination at all obtains; and we lose the guiding thread of the causes entirely in the effects that are supposed to show themselves in inner sense. But we ought to bear in mind that bodies are not objects in themselves that are present to us, but a mere appearance of who knows what

unknown object; that motion is not the effect of this unknown cause, but merely the appearance of its influence on our senses; that consequently neither of them is something outside us, but both are merely representations in us; and hence that it is not the motion of matter that produces representations in us, but that motion itself (and hence also matter, which makes itself knowable through it) is mere representation; and finally, that the whole self-made difficulty comes down to this: how, and through what cause, the representations of our sensibility are so connected with one another that those we call outer intuitions can be represented according to empirical laws as objects outside us. This question does not at all contain the supposed difficulty of explaining the origin of representations from wholly alien efficient causes found outside us—a difficulty that arises because we take the appearances of an unknown cause for the cause outside us, which can only produce confusion. In judgments where a misinterpretation rooted by long habit is present, it is impossible to bring the correction at once to the degree of comprehensibility that can be attained in other cases, where no such unavoidable illusion confuses the concept. Hence this liberation of reason from sophistical theories on our part will hardly yet have the clarity it needs for complete satisfaction.

I believe I can promote this clarity in the following way.

DOGMATIC, CRITICAL AND SKEPTICAL OBJECTIONS

Only a critical objection can overturn the theory of physical influence without claiming knowledge.

IV 243 All *objections* can be divided into *dogmatic*, *critical*, and *skeptical* ones. The dogmatic objection is one directed against a *proposition*; the critical, one directed against the *proof* of a proposition. The former requires insight into the constitution of the nature of the object, so as to be able to assert the opposite of what the proposition alleges about this object; it is therefore itself dogmatic, and claims to know the constitution in question

better than the other side does. The critical objection, because it leaves the proposition untouched in its worth or worthlessness and challenges only the proof, does not need to know the object better at all, or to claim a better knowledge of it; it shows only that the assertion is groundless, not that it is incorrect. The skeptical objection sets proposition and counterproposition against each other as objections of equal weight, each of them in turn as a dogma and the other as its objection. It is thus, to all appearances, dogmatic on two opposite sides, in order to annihilate all judgment about the object entirely. Both the dogmatic and the skeptical objection, then, must claim as much insight into their object as is needed to assert something about it affirmatively or negatively. The critical objection alone is of such a kind that, merely by showing that one assumes in support of one's assertion something void and merely imagined, it topples the theory by withdrawing its presumed foundation, without otherwise wishing to settle anything about the constitution of the object.

Now, following the common concepts of our reason, we are dogmatic with regard to the community in which our thinking subject stands with things outside us. We regard these things as true objects subsisting independently of us, according to a certain transcendental dualism, which does not count those outer appearances as representations belonging to the subject, but transfers them, just as sensible intuition supplies them to us, outside us as objects, and separates them entirely from the thinking subject. This subreption is the foundation of all theories about the community between soul and body. No one ever asks whether this objective reality of appearances is really quite correct; instead it is presupposed as granted, and people reason sophistically only about the way in which it is to be explained and comprehended. The usual three systems devised on this matter, and indeed the only possible ones, are those [IV 244] of *phys-*

ical influence, of preestablished *harmony*, and of *supernatural assistance*.[10]

The two latter ways of explaining the community of the soul with matter are grounded on objections against the first, which is the view of common understanding: namely, that what appears as matter cannot, through its immediate influence, be the cause of representations, which are a wholly heterogeneous kind of effect. But in that case they cannot connect with what they understand by the object of the outer senses the concept of a matter that is nothing but appearance, and hence already in itself mere representation, produced by some outer objects or other. For otherwise they would be saying that the representations of outer objects (the appearances) cannot be outer causes of the representations in our mind—which would be a wholly senseless objection, since it will occur to no one to take for an outer cause what he has once recognized as mere representation. According to our principles, therefore, they must direct their theory at this: that what is the true (transcendental) object of our outer senses cannot be the cause of those representations (appearances) that we understand by the name of matter. Now since no one can with any ground claim to know anything of the transcendental cause of our representations of the outer senses, their assertion is entirely groundless. But suppose the would-be improvers of the doctrine of physical influence, following the common way of representing things in a transcendental dualism, were to regard matter as such as a thing in itself (and not as the mere appearance of an unknown thing), and were to direct their objection at showing that such an outer object, which displays in itself no causality other than that of motions, can never be the efficient cause of representations, and that a third being must therefore intervene in order to establish, if not reciprocal action, then at least correspondence and harmony between the two. In that case they would begin their refutation by adopting the *πρῶτον ψεῦδος* ["first falsehood"] of physical influence in

10 Respectively direct causal influence (*influxus physicus*), Leibniz's preestablished harmony, and occasionalism, on which God produces the correspondence.

their own dualism, and so by their objection they would refute not so much natural influence as their own dualistic presupposition.[11] For all the difficulties that affect the connection of thinking nature with matter arise, without exception, solely from that surreptitiously obtained dualistic representation: that matter IV 245 as such is not appearance, that is, a mere representation of the mind to which an unknown object corresponds, but the object in itself, as it exists outside us and independently of all sensibility.

Hence no dogmatic objection can be made against the commonly accepted physical influence. For if the opponent assumes that matter and its motion are mere appearances, and thus themselves only representations, then he can locate the difficulty only in this: that the unknown object of our sensibility could not be the cause of the representations in us. But nothing whatever entitles him to allege this, because no one can determine about an unknown object what it can or cannot do. And by our proofs above he must necessarily concede this transcendental idealism, unless he openly wants to hypostatize representations and transfer them outside himself as true things.

Nevertheless a well-founded *critical objection* can be made against the common doctrine of physical influence. Such an alleged community between two kinds of substances, the thinking and the extended, rests on a crude dualism, and turns the latter—which are nothing but mere representations of the thinking subject—into things that subsist by themselves. Thus physical influence, misunderstood in this way, can be entirely frustrated by exposing its ground of proof as void and surreptitious.

The notorious question about the community of the thinking and the extended would therefore, once everything imaginary is set aside, come down simply to this: *how outer intuition*—namely that of space (of its filling, shape, and motion)—*is possible in a thinking subject in general*. But to this question no human being can possibly find an answer. One can never fill this gap in our

11 *Prōton pseudos*: Aristotle's term (*Prior Analytics* 2.18) for the false first premise from which an erroneous argument proceeds.

knowledge, but only mark it, by ascribing outer appearances to a transcendental object that is the cause of this kind of representations, but which we do not know at all and of which we will never get any concept. In all problems that may arise in the field of experience, we treat those appearances as objects in themselves, without concerning ourselves about the first ground of their possibility (as appearances). But if we go beyond their boundary, the concept of a transcendental object becomes necessary.

IV 246 From these reminders about the community between thinking and extended beings, the decision of all disputes or objections concerning the state of thinking nature before this community (life) or after such community has been abolished (in death) follows immediately. The opinion that the thinking subject could have thought before all community with bodies would be expressed thus: that before the beginning of this kind of sensibility, through which something appears to us in space, the same transcendental objects that in the present state appear as bodies could have been intuited in an entirely different way. The opinion, however, that the soul, after all community with the corporeal world has been abolished, could still continue to think would present itself in this form: that if the kind of sensibility through which transcendental objects, for now wholly unknown, appear to us as a material world should cease, not all intuition of them would thereby be abolished; and it is quite possible that those very same unknown objects would continue to be cognized by the thinking subject, though of course no longer in the quality of bodies.

Now no one can adduce the slightest ground for such an assertion from speculative principles, or even demonstrate its possibility; one can only presuppose it. But just as little can anyone make any valid dogmatic objection against it. For whoever he may be, he knows just as little about the absolute and inner cause of outer and corporeal appearances as I or anyone else. So he cannot with any ground claim to know on what the actuality of outer appearances in the present state (in life) rests, and

hence cannot claim to know either that the condition of all outer intuition, or even the thinking subject itself, will cease after this state (in death).

So all dispute about the nature of our thinking being and its connection with the corporeal world is merely a consequence of this: that, with regard to what one knows nothing about, one fills the gap with paralogisms of reason, making one's thoughts into things and hypostatizing them. From this arises imaginary science, on the part of the one who asserts affirmatively as much as of the one who asserts negatively. For each either fancies he knows something about objects of which no human being has any concept, or makes his own [IV 247] representations into objects, and so turns round and round in an eternal circle of ambiguities and contradictions. Nothing but the sobriety of a strict but just critique can free us from this dogmatic deception, which holds so many in suspense among theories and systems with an imagined happiness, and confine all our speculative claims merely to the field of possible experience. It does this not through stale mockery of attempts that have so often failed, or pious sighs over the limits of our reason, but by means of a determination of reason's boundaries carried out according to secure principles. This determination fastens reason's *nihil ulterius* ["nothing further"] with the greatest reliability to the Pillars of Hercules that nature itself has set up, so that our reason continues its voyage only as far as the continuous coastlines of experience reach. These we cannot leave without venturing onto a shoreless ocean which, amid ever deceptive prospects, in the end compels us to give up all our arduous and protracted effort as hopeless.[12]

12 The Pillars of Hercules, the promontories flanking the Strait of Gibraltar, were said to mark the limit of the navigable world.

THE ILLUSION BEHIND THE PARALOGISMS

The unity of thought is mistaken for a perceived unity in the thinking subject.

We still owe a clear and general discussion of the transcendental and yet natural illusion in the paralogisms of pure reason, and likewise the justification of their systematic arrangement, which runs parallel to the table of categories. We could not have undertaken this at the beginning of this section without running the risk of obscurity, or of inappropriately anticipating ourselves. Now we shall try to fulfill this obligation.

All *illusion* can be placed in this: that the *subjective* condition of thinking is taken for the cognition of the *object*. Further, we showed in the Introduction to the Transcendental Dialectic that pure reason is concerned solely with the totality of the synthesis of the conditions for a given conditioned. Now since the dialectical illusion of pure reason cannot be an empirical illusion, such as occurs in determinate empirical cognition, it will concern what is universal in the conditions of thinking; and there will be only three cases of the dialectical use of pure reason:

1. The synthesis of the conditions of a thought in general.
2. The synthesis of the conditions of empirical thinking.

IV 248 3. The synthesis of the conditions of pure thinking.

In all three of these cases pure reason is concerned merely with the absolute totality of this synthesis, that is, with that condition which is itself unconditioned. On this division is also based the threefold transcendental illusion, which gives occasion for three sections of the Dialectic and supplies the idea for just as many seeming sciences from pure reason: transcendental psychology, cosmology, and theology. Here we have to do only with the first.

Because in thinking in general we abstract from every relation of the thought to any object (whether of the senses or of pure understanding), the synthesis of the conditions of a thought in general (no. 1) is not objective at all, but merely a

synthesis of the thought with the subject, which is, however, falsely taken for a synthetic representation of an object.

But it also follows from this that the dialectical inference to the condition of all thinking in general, which is itself unconditioned, does not commit an error in content (for it abstracts from all content or object), but errs solely in form and must be called a paralogism.

Further, since the only condition that accompanies all thinking is the I in the universal proposition "I think," reason has to do with this condition insofar as it is itself unconditioned. But it is only the formal condition, namely the logical unity of every thought, in which I abstract from every object; and yet it is represented as an object that I think, namely I myself and its unconditioned unity.

If someone were to put to me the question in general, "What is the constitution of a thing that thinks?" I would know nothing whatever to answer *a priori*, because the answer is supposed to be synthetic (for an analytic answer may perhaps explain thinking, but gives no extended cognition of that on which this thinking rests as regards its possibility). But every synthetic solution requires intuition, and in so general a problem intuition has been left out entirely. In the same way, no one can answer in its generality the question, "What sort of thing must that be which is movable?" For impenetrable extension (matter) is then not IV 249 given. Now although I know no answer to that question in general, it still seems to me that I could give one in the particular case, in the proposition that expresses self-consciousness: I think. For this I is the first subject, that is, substance; it is simple, etc. But these would then have to be nothing but propositions of experience, which nevertheless, without a universal rule stating the conditions of the possibility of thinking in general and *a priori*, could contain no such predicates (which are not empirical). In this way my insight, at first so plausible, into judging the nature of a thinking being, and that from mere concepts, becomes suspect to me, although I have not yet discovered its error.

But further investigation into the origin of these attributes, which I ascribe to myself as a thinking being in general, can uncover this error. They are nothing more than pure categories, through which I never think a determinate object, but only the unity of representations, in order to determine an object of them. Without an underlying intuition, the category alone cannot provide me with any concept of an object; for only through intuition is the object given, which is afterwards thought in accordance with the category. If I declare a thing to be a substance in appearance, then predicates of its intuition must first be given to me, in which I distinguish the persistent from the changeable, and the substratum (the thing itself) from what merely attaches to it. If I call a thing simple in appearance, I mean by this that its intuition is indeed a part of the appearance but cannot itself be divided, and so on. But if something is cognized as simple only in the concept and not in appearance, then I really have no cognition at all of the object, but only of my concept, which I form of something in general that is not capable of any intuition proper. I only say that I think something as entirely simple because I really do not know how to say anything more about it than merely that it is something.

Now mere apperception (the I) is substance in concept, simple in concept, etc., and so all those psychological doctrines have their indisputable correctness. Nevertheless, this by no means gives cognition of what one actually wants to know about the soul. For none of these predicates holds of intuition at all, and so they also can [IV 250] have no consequences that could be applied to objects of experience; hence they are completely empty. For that concept of substance does not teach me that the soul endures by itself, nor that it is a part of outer intuitions that cannot itself be further divided and that therefore cannot arise or perish through any alterations of nature. These are all properties that could make the soul knowable to me in the connection of experience, and could give disclosure about its origin and future state. But if I now say, through the mere category, "The soul is a simple substance," then it is clear that, since the bare

concept of substance belonging to the understanding contains nothing more than that a thing is to be represented as subject in itself without in turn being a predicate of anything else, nothing about persistence follows from it; and the attribute of simplicity certainly cannot add this persistence. So one is not in the least informed by this about what may befall the soul in the alterations of the world. If we could be told that it is *a simple part of matter*, then from what experience teaches about matter we could derive its persistence, and, together with its simple nature, its indestructibility. But of this the concept of the I in the psychological principle (I think) tells us not a word.

That the being which thinks in us should suppose that it cognizes itself through pure categories—and indeed through those that express absolute unity under each of their headings—comes about as follows. Apperception is itself the ground of the possibility of the categories, which for their part represent nothing but the synthesis of the manifold of intuition insofar as that manifold has unity in apperception. Self-consciousness in general is therefore the representation of that which is the condition of all unity and yet is itself unconditioned. One can therefore say of the thinking I (the soul), which thinks itself as substance, as simple, as numerically identical in all time, and as the correlate of all existence from which all other existence must be inferred, that it cognizes not so much *itself through the categories* as the *categories*, and through them all objects, in the absolute unity of apperception, and hence *through itself*. Now it is indeed very evident that I cannot cognize as an object that which I must presuppose in order to cognize any object at all, and that the determining self (thinking) is distinct from the determinable self (the thinking subject) IV 251 as cognition is from its object. Nevertheless, nothing is more natural and more seductive than the illusion of taking the unity in the synthesis of thoughts for a perceived unity in the subject of these thoughts. One could call it the subreption of hypostatized consciousness (*apperceptionis substantiatae* ["of substantialized apperception"]).

If one wants to give a logical title to the paralogism in the dialectical syllogisms of the rational doctrine of the soul, insofar as they nevertheless have correct premises, it can count as a *sophisma figurae dictionis* ["sophism of a figure of speech"]. In it the major premise makes a merely transcendental use of the category with respect to its conditions, while the minor premise and the conclusion, with respect to the soul, which has been subsumed under this condition, make an empirical use of the very same category. Thus, for example, the concept of substance in the paralogism of simplicity is a pure intellectual concept, which without conditions of sensible intuition is of merely transcendental use, that is, of no use at all. In the minor premise, however, the very same concept is applied to the object of all inner experience without first establishing and laying down as a basis the condition of its application *in concreto*, namely the persistence of that object; and so an empirical use has been made of it, though here an inadmissible one.

Finally, to show the systematic connection of all these dialectical assertions of a sophistical doctrine of the soul within a connection of pure reason, and hence their completeness, let it be noted that apperception is carried through all the classes of the categories, but only onto those concepts of the understanding which in each class ground the unity of the others in a possible perception: hence subsistence, reality, unity (not plurality), and existence. Only here reason represents them all as conditions of the possibility of a thinking being, conditions that are themselves unconditioned. So the soul cognizes in itself

1. the *unconditioned unity* of *relation*, that is, itself not as inhering but as *subsisting*

IV 252 2. the *unconditioned unity* of *quality*, that is, not as a real whole but as *simple*[13]

13 KANT'S NOTE. How the simple here corresponds in turn to the category of reality I cannot yet show; it will be shown in the following chapter, on the occasion of another use of reason of this same concept.

3. the *unconditioned unity* in *plurality* in time, that is, not numerically different at different times but as *one* and the very *same subject*

4. the *unconditioned unity* of *existence* in *space*, that is, not as the consciousness of several things outside it, but *only of its own existence*, and of other things merely as its *representations*

Reason is the faculty of principles. The assertions of pure psychology contain not empirical predicates of the soul but predicates that, if they hold, are supposed to determine the object in itself independently of experience, hence through mere reason. They would therefore rightly have to be grounded on principles and universal concepts of thinking natures in general. Instead, it turns out that the single representation "I am" governs them all. Precisely because it expresses the pure formula of all my experience (indeterminately), this representation announces itself as a universal proposition valid for all thinking beings; and since it is nonetheless singular in every respect, it carries with it the illusion of an absolute unity of the conditions of thinking in general, and thereby extends itself further than possible experience could reach.