



Prolegomena to Any Future Metaphysics

IMMANUEL KANT

Musean Translation

MOUSEIA



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Translated by Michael Berardi

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THIS EDITION

Mouseia's complete machine-assisted Musean translation, made directly from the complete German of the Prolegomena (AA IV 253–383, all §§1–60 and the Appendix), for fidelity, the steps of Kant's argument, clarity and structure.

TRANSLATOR

Michael Berardi

THE WORK

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GAPS AND UNCERTAINTIES

The translation is machine-assisted and source-reviewed, not the work of a named human translator. AA309's comparative größer, AA334's two calls to one note and AA354's §ph are kept as the witness prints them rather than conjecturally emended; AA372–373's nicht bloß construction is kept as the page reads; AA259 prints “trotzig thut Ich sollte” with no full stop after “thut” (checked against the scan image), and the Original keeps it so.

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Title



Prolegomena
to
Any Future Metaphysics
That Will Be Able to Present Itself
as a Science
by
Immanuel Kant.

Preface



These prolegomena are intended not for apprentices but for future teachers, and even for them their purpose is not to arrange the presentation of a science already in existence, but to discover that science in the first place.

There are scholars for whom the history of philosophy, ancient as well as modern, is itself their philosophy; these prolegomena were not written for them. They must wait until those who seek to draw from the springs of reason itself have settled their business; then it will be their turn to inform the world of what has happened. Otherwise nothing can be said that, in their opinion, has not been said before. Indeed, this may count as an infallible prediction of everything to come: since the human understanding has ranged fancifully over countless objects in many different ways for many centuries, something old can scarcely fail to be found that bears some resemblance to every novelty.

My purpose is to convince all those who think metaphysics worth pursuing that they must necessarily suspend their work for the present, regard everything done so far as undone, and, before all else, first raise the question: is anything like metaphysics possible at all?

If it is a science, how is it that, unlike other sciences, it cannot win universal and lasting acceptance? If it is not, how does it keep boasting under the guise of a science, holding out to the human understanding hopes that never die but are never fulfilled? Whether we demonstrate our knowledge or our ignorance, something certain must at last be established about the nature of this self-

appointed science; it cannot possibly go on as it has. It seems almost laughable that, while every other science advances without cease, this one—which claims to be wisdom itself, whose oracle everyone consults—keeps turning on the same spot without advancing a single step. Its adherents, too, have dwindled greatly. Those who feel strong enough to shine in other sciences show no wish to risk their reputations in this one, where everyone, however ignorant in all other matters, presumes to pronounce a decisive judgment, because in this realm there are still no reliable weights and measures for distinguishing sound work from shallow chatter.

Yet it is hardly unheard of that, after long work on a science, when people imagine how wonderfully far they have advanced, someone should at last think to ask whether and how such a science is possible at all. Human reason is so eager to build that it has repeatedly erected its tower, only to tear it down again afterward to see what its foundations might be like. It is never too late to become reasonable and wise; but when insight comes late, putting it to work is always harder.

To ask whether a science is even possible presupposes doubt about its actuality. Such doubt, however, offends anyone whose entire possessions may consist of this supposed jewel; and whoever lets such a doubt escape must be prepared for resistance from every side. Some, proudly conscious of their ancient—and therefore, they believe, rightful—possession, will look down on him with contempt, their metaphysical compendiums in hand. Others, who see nothing anywhere except what is identical with something they have already seen elsewhere, will not understand him. For a time everything will remain as though nothing had happened to make anyone fear or hope for an approaching change.

Nevertheless, I venture to predict that the reader of these prolegomena who thinks for himself will not merely doubt his previous science. He will eventually become entirely convinced that no such science can exist unless the requirements stated here, on which its possibility depends, are fulfilled; and since this has never yet happened, that there is as yet no metaphysics at all. Yet the demand for it can never disappear,^[257-1] because the interests of universal

human reason are too intimately bound up with it. He will therefore acknowledge that a complete reform—or rather a new birth according to a plan wholly unknown until now—is inevitably approaching, however much people may resist it for a while.

Since the attempts of *Locke* and *Leibniz*, or rather since the origin of metaphysics as far back as its history reaches, nothing has happened that could have been more decisive for the fate of this science than *David Hume's* attack on it. He brought no light to this kind of cognition, but he did strike a spark from which a light might well have been kindled, had it met receptive tinder whose glow was carefully tended and increased.

Hume began chiefly with a single but important concept of metaphysics, namely the *connection of cause and effect* (and thus also its derivative concepts of force and action, and so forth). He challenged reason, which claims to have brought this concept forth from its own womb, to account for the right by which it thinks that something can be so constituted that, once it is posited, something else must necessarily be posited through it as well; for this is what the concept of a cause says. He proved beyond dispute that reason is wholly incapable of thinking such a connection a priori and from concepts, since it contains necessity; yet there is simply no seeing why, because something is, something else must necessarily be as well, or how the concept of such a connection can therefore be introduced a priori. From this he concluded that reason is entirely deceived in this concept, falsely taking it for its own child when it is nothing but a bastard of the imagination: made pregnant by experience, the imagination has brought certain representations under the law of association and passed off the subjective necessity arising from this—that is, habit—as an objective necessity arising from insight. From this he concluded that reason has no capacity even to think such connections in general, since its concepts would then be mere inventions; and all its allegedly a priori cognitions would be nothing but ordinary experiences bearing a counterfeit stamp. This amounts to saying that there is no metaphysics at all, nor can there be any.^[258-1]

However hasty and mistaken his conclusion, it was at least founded on an investigation; and that investigation well deserved the combined efforts of the able minds of his time to solve the problem, if possible more successfully, in the sense in which he presented it. A complete reform of the science would then soon have had to follow.

But the fate that has always been unkind to metaphysics decreed that no one should understand him. It is painful to see how completely his opponents—*Reid*, *Oswald*, *Beattie*, and finally *Priestley*—missed the point of his problem. They constantly took for granted precisely what he doubted, while vehemently and, for the most part, with great immodesty proving what he had never thought of doubting. They so misunderstood his hint toward improvement that everything remained as it had been, as though nothing had happened. The question was not whether the concept of a cause was correct, useful, and indispensable for the whole cognition of nature; *Hume* had never doubted this. It was whether this concept is thought a priori through reason and thus possesses an inner truth independent of all experience, and consequently a usefulness that may extend further and is not confined merely to objects of experience. This was the point on which *Hume* expected clarification. The issue was solely the origin of the concept, not its indispensability in use. Once the former had been established, the conditions of its use and the range within which it could be valid would have followed of themselves.

To do justice to the problem, however, the celebrated man's opponents would have had to penetrate very deeply into the nature of reason insofar as it concerns itself solely with pure thinking, and this did not suit them. They therefore invented a more convenient means of defiance without any insight at all: an appeal to *common sense*. It is indeed a great gift of heaven to possess a sound—or, as it has recently been called, plain—human understanding. But one must prove it by deeds, by what is considered and reasonable in one's thoughts and words, not by appealing to it as an oracle whenever one has nothing intelligent to offer in one's defense. To appeal to common sense when insight and science run out, and not before, is one of the subtle inventions of modern times, allowing the most insipid chatterer confidently to confront the

most thorough thinker and hold his own. Yet as long as even a small remnant of insight remains, one will take care not to resort to this expedient. Seen clearly, this appeal is nothing but an appeal to the judgment of the crowd: applause that makes the philosopher blush, while the popular wit triumphs and puts on a bold face. I should have thought, however, that *Hume* could claim a sound understanding just as well as *Beattie*, and something more that the latter certainly did not possess: a critical reason that keeps common understanding within bounds, preventing it from soaring into speculation or, where speculation alone is at issue, from claiming to decide anything, since it cannot justify its own principles. Only in this way will it remain a sound understanding. Chisel and mallet may serve very well for working a piece of timber, but copper engraving requires an etching needle. Sound understanding and speculative understanding are both useful, then, but each in its own way: the former when judgments find their immediate application in experience, the latter when judgments are to be made universally, from mere concepts—for example in metaphysics, where what calls itself sound understanding, often per antiphrasin, or by an opposite name, has no judgment whatever.

I freely confess: it was *David Hume's* reminder that first, many years ago, interrupted my dogmatic slumber and gave my investigations in speculative philosophy an entirely different direction. I was far from accepting his conclusions, which arose only because he did not represent his problem to himself as a whole but struck upon just one part of it, a part that cannot provide an answer unless the whole is taken into account. If we begin with a well-founded though undeveloped thought left to us by another, continued reflection may give us hope of advancing further than the penetrating thinker to whom we owed the first spark of this light.

I therefore first tried to see whether *Hume's* objection could be represented universally, and soon found that the concept of the connection of cause and effect was far from the only one through which the understanding thinks connections of things a priori; rather, metaphysics consists entirely of such concepts. I sought to ascertain their number, and when I had succeeded as I wished—namely, from a single principle—I proceeded to the deduction of these con-

cepts, of which I was now certain that they were not derived from experience, as *Hume* had feared, but sprang from pure understanding. This deduction, which seemed impossible to my acute predecessor, and which no one but he had even thought of, although everyone confidently used these concepts without asking what grounded their objective validity—this, I say, was the most difficult undertaking that could ever have been attempted on behalf of metaphysics. Worst of all, metaphysics, whatever of it might exist anywhere, could not give me the slightest help, since that deduction must first establish the possibility of metaphysics. Once I had succeeded in solving Hume's problem, not merely in one particular case but with respect to the entire faculty of pure reason, I could take secure, though still only slow, steps toward finally determining the whole extent of pure reason, both its boundaries and its content, completely and according to universal principles. This was precisely what metaphysics needed in order to construct its system according to a reliable plan.

But I fear that the *development* of Hume's problem in its greatest possible extension—namely, the Critique of Pure Reason—may meet the same fate as the *problem* itself when it was first presented. People will judge it wrongly because they do not understand it; they will not understand it because they are inclined to leaf through the book, but not to think it through; and they will not wish to expend this effort because the work is dry, obscure, contrary to all their accustomed concepts, and lengthy besides. Now I confess that I did not expect to hear a philosopher complain of a lack of popular appeal, entertainment, and ease when the issue is the very existence of a celebrated cognition indispensable to humanity, which can be established only by the strictest rules of scholarly precision. Popular appeal may follow these in time, but must never come first. Yet the complaint about a certain obscurity is just: this arises in part from the breadth of the plan, which makes it difficult to survey the principal points on which the investigation turns. I shall remedy this through the present *Prolegomena*.

That work, which presents the faculty of pure reason in its entire extent and within its boundaries, nevertheless remains the foundation; the *Prolegomena* relate to it only as preliminary exercises. For that critique must stand as a sci-

ence, systematic and complete down to its smallest parts, before anyone can think of bringing metaphysics forward, or even entertain a distant hope of it.

People have long been accustomed to seeing old, worn-out cognitions dressed up anew by removing them from their former connections and fitting them with a systematic costume, arbitrarily cut but bearing new titles; and most readers will expect nothing else from that critique in advance. These prolegomena, however, will lead them to see that it is an entirely new science, of which no one had previously formed even the thought, whose very idea was unknown, and for which nothing previously available could be used except the hint supplied by *Hume's* doubts. He likewise had no inkling of such a possible formal science; to bring his ship to safety, he ran it onto the beach—skepticism—where it may lie and rot. My concern, by contrast, is to give it a pilot who, equipped with a complete sea chart and a compass, can steer the ship safely wherever he sees fit, according to reliable principles of navigation drawn from knowledge of the globe.

To approach a new science, entirely isolated and unique of its kind, with the prejudice that one can judge it by the supposed knowledge one has already acquired elsewhere—even though the reality of precisely that knowledge must first be called wholly into doubt—achieves nothing but the belief that one sees everywhere what one already knew, perhaps because the expressions sound similar. Everything must then appear utterly distorted, absurd, and gibberish, since one is taking as one's basis not the author's thoughts but always one's own way of thinking, which long habit has made second nature. Yet the length of the work, insofar as it is grounded in the science itself rather than its presentation, together with its unavoidable dryness and scholastic precision, are qualities that may be exceedingly advantageous to the subject itself but must certainly be detrimental to the book.

Not everyone, admittedly, is gifted with the ability to write as subtly and yet as engagingly as *David Hume*, or as thoroughly and yet as elegantly as *Moses Mendelssohn*. But I could, I flatter myself, have given my presentation popular appeal had I been concerned merely to sketch a plan and commend its execution to others, and had the welfare of the science that occupied me so long not

been close to my heart. Apart from that, it took much perseverance and no little self-denial to set aside the lure of an early, favorable reception for the prospect of an acceptance that, though late, would endure.

Making plans is often a lavish, boastful occupation of the mind, by which one gives oneself the air of creative genius: demanding what one cannot oneself accomplish, censuring what one cannot improve, and proposing what one does not oneself know where to find. Even a competent plan for a general critique of reason, however, would have required somewhat more than might be supposed, unless it was to become, as usual, a mere declamation of pious wishes. But pure reason is a sphere so separate, so thoroughly interconnected within itself, that no part of it can be touched without touching all the rest, and nothing can be accomplished without first determining each part's place and its influence on the others. For there is nothing outside it that could correct our judgment within it, and so the validity and use of every part depend on its relation to the others within reason itself, just as in the structure of an organized body the purpose of each member can be derived only from the complete concept of the whole. We may therefore say of such a critique that it is never reliable unless it is *whole* and *completed* down to the least elements of pure reason, and that in the sphere of this faculty we must determine and establish either *everything* or *nothing*.

Although a mere plan preceding the *Critique* of Pure Reason would be unintelligible, unreliable, and useless, a plan following it is all the more useful. It enables us to survey the whole, examine separately the principal points on which this science turns, and arrange much in the presentation better than was possible in the first execution of the work.

Here, then, is such a *plan* after the completion of the work. It may now be laid out according to the *analytic method*, whereas the work itself had to be composed entirely according to the *synthetic manner of exposition*, so that the science would display all its articulations in their natural connection, as the structure of a quite distinctive faculty of cognition. Anyone who finds even this plan obscure, which I put forward as prolegomena to all future metaphysics, should consider that not everyone needs to study metaphysics; that many a tal-

ent thrives in rigorous and even profound sciences that lie closer to intuition, yet cannot succeed in investigations conducted through abstract concepts alone, and in that case must devote its powers of mind to another object; but that whoever undertakes to judge metaphysics, or indeed to compose one, must satisfy the demands made here in full, whether by accepting my solution or by thoroughly refuting it and putting another in its place—for he cannot dismiss them. Finally, he should consider that the much-decried obscurity—a customary cloak for one’s own indolence or shortsightedness—also has its use. All those who maintain a cautious silence about every other science speak with mastery and decide boldly on questions of metaphysics, because here their ignorance does not, to be sure, stand out clearly against the knowledge of others; but it does stand out against genuine critical principles, of which we may therefore boast:

ignavum, fucos, pecus a praesepibus arcent.

Virg.

They drive the drones, that idle herd, away from the hives.

[²⁵⁷-1]: Rusticus exspectat, dum defluat amnis; at ille

Labitur et labetur in omne volubilis aevum.

Horat.

The countryman waits for the river to finish flowing; but it flows and will flow, rolling on through all eternity.

[²⁵⁸-1]: Yet *Hume* himself called this very destructive philosophy metaphysics, and set a high value on it. “Metaphysics and morals,” he says (Essays, Part 4, page 214, German translation), “are the most important branches of science; mathematics and natural science are not worth half as much.” Here, however, this acute thinker saw only the negative benefit that moderating the excessive claims of speculative reason would have in putting a complete end to so many endless, persecuting disputes that trouble the human race. In doing so, he lost sight of the positive harm that results when reason is deprived of its most important prospects, which alone enable it to set before the will the highest goal of all its endeavors.

Preliminary reminder



Prolegomena.

Preliminary Reminder

Concerning

What Is Distinctive in All Metaphysical Cognition.

Section 1



§ 1.

On the Sources of Metaphysics.

If we wish to present a cognition as a *science*, we must first be able to determine precisely what distinguishes it, what it shares with no other, and what is therefore *distinctive* to it. Otherwise the boundaries of all the sciences run together, and none can be treated thoroughly according to its nature.

Whether this distinctive character consists in a difference of *object*, of *sources of cognition*, of *kind of cognition*, or of some if not all of these together, it is on this that the idea of the possible science and its territory first depends.

First, as regards the *sources* of metaphysical cognition, its very concept already entails that they cannot be empirical. Its principles—which include not only its fundamental propositions but also its fundamental concepts—must therefore never be drawn from experience; for it is to be not physical but metaphysical cognition, that is, cognition lying beyond experience. Hence neither outer experience, the source of physics proper, nor inner experience, the foundation of empirical psychology, will underlie it. It is therefore cognition a priori, or cognition from pure understanding and pure reason.

In this, however, it would have nothing to distinguish it from pure mathematics; it must therefore be called *pure philosophical* cognition. For the meaning of this expression I refer to the Critique of Pure Reason, page 712 and follow-

ing, where the distinction between these two ways of using reason has been presented clearly and satisfactorily.—So much for the sources of metaphysical cognition.

Section 2



§ 2.

On the Kind of Cognition That Alone Can Be Called Metaphysical.

a)

On the Distinction between Synthetic and Analytic Judgments in General.

Metaphysical cognition must contain nothing but judgments a priori: the distinctive character of its sources requires this. Yet whatever their origin or logical form, judgments differ in content in a way that makes them either merely *explicative*, adding nothing to the content of cognition, or *ampliative*, increasing the given cognition. The former may be called *analytic*, the latter *synthetic* judgments.

Analytic judgments say nothing in the predicate except what was already actually thought in the concept of the subject, though not so clearly or with the same awareness. If I say, “All bodies are extended,” I have not enlarged my concept of body in the least, but have merely analyzed it: even before the judgment, extension was actually thought in that concept, though not expressly stated. The judgment is therefore analytic. By contrast, the proposition “Some bodies are heavy” contains something in its predicate that is not actually thought in the general concept of body. It therefore increases my cognition by adding something to my concept, and must accordingly be called a synthetic judgment.

b)

The Common Principle of All Analytic Judgments Is the Principle of Contradiction.

All analytic judgments rest entirely on the principle of contradiction and are by their nature cognitions a priori, whether or not the concepts serving as their material are empirical. For since the predicate of an affirmative analytic judgment is already thought in the concept of the subject, it cannot be denied of that subject without contradiction. Likewise, in an analytic but negative judgment, its opposite is necessarily denied of the subject, again by the principle of contradiction. This is how matters stand with the propositions “Every body is extended” and “No body is unextended (simple).”

For this very reason all analytic propositions are also judgments a priori, even when their concepts are empirical: for example, “Gold is a yellow metal.” To know this I need no further experience beyond my concept of gold, which contained the thought that this body is yellow and is a metal. This constituted my very concept, and I needed to do nothing but analyze it, without looking beyond it for anything else.

c)

Synthetic Judgments Require a Principle Other Than the Principle of Contradiction.

There are synthetic judgments a posteriori, whose origin is empirical; but there are also synthetic judgments that are certain a priori and spring from pure understanding and reason. Both agree, however, in never being able to arise from the principle of analysis—the principle of contradiction—alone. They require yet another, quite different principle, although, from whatever principle they are derived, they must always be derived *in accordance with* the principle of contradiction. For nothing may contradict this principle, although not everything can be derived from it. I shall first divide synthetic judgments into classes.

1) *Judgments of experience* are always synthetic. It would be absurd to base an analytic judgment on experience, since I need not go beyond my concept at all to make the judgment, and therefore need no testimony from experience. That a body is extended is a proposition established a priori, not a judgment of

experience. Before I turn to experience, I already have all the conditions for my judgment in the concept, from which I need only extract the predicate according to the principle of contradiction. In doing so I can also become conscious of the judgment's *necessity*, which experience could not even teach me.

2) *Mathematical judgments* are all synthetic. This proposition seems hitherto to have wholly escaped the notice of those who analyze human reason, and indeed to run directly counter to all their conjectures, although it is indisputably certain and of great importance for what follows. Because it was found that all the inferences of mathematicians proceed according to the principle of contradiction—as the nature of all apodictic certainty requires—people persuaded themselves that the fundamental propositions too were known from the principle of contradiction. In this they were greatly mistaken. A synthetic proposition can indeed be discerned according to the principle of contradiction, but only if another synthetic proposition is presupposed from which it can be inferred; never in itself.

First we must note that properly mathematical propositions are always judgments a priori, not empirical, because they carry necessity with them, and this cannot be drawn from experience. If anyone refuses to grant me this, then I shall restrict my assertion to *pure mathematics*, whose very concept entails that it contains not empirical cognition but only pure cognition a priori.

At first one might well think that the proposition $7 + 5 = 12$ is merely analytic, following from the concept of a sum of seven and five according to the principle of contradiction. On closer examination, however, we find that the concept of the sum of 7 and 5 contains nothing more than the union of the two numbers into a single one; it does not in the least specify what this single number embracing both is. The concept of twelve is by no means already thought when I merely think of that union of seven and five. However long I analyze my concept of such a possible sum, I shall never find twelve in it. We must go beyond these concepts by calling on the intuition corresponding to one of the two—say, our five fingers, or five points, as *Segner* does in his arithmetic—and thus gradually add the units of the five given in intuition to the concept of seven. We therefore really enlarge our concept through the proposi-

tion $7 + 5 = 12$, adding to the first concept a new one not thought in it at all. That is, an arithmetical proposition is always synthetic. This becomes all the clearer if we take somewhat larger numbers: it is then evident that, however we turn and twist our concept, we could never find the sum by merely analyzing our concepts without calling on intuition.

Nor is any fundamental proposition of pure geometry analytic. That the straight line between two points is the shortest is a synthetic proposition. For my concept of straightness contains nothing of magnitude, but only a quality. The concept of the shortest is therefore added in its entirety, and cannot be drawn from the concept of the straight line by any analysis. Here, then, we must call on intuition, through which alone the synthesis is possible.

Some other fundamental propositions presupposed by geometers are indeed analytic and rest on the principle of contradiction; but, like identical propositions, they serve only as links in the 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. Yet even these, although valid according to mere concepts, are admitted in mathematics only because they can be exhibited 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 an ambiguity of expression. We *ought*, namely, 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 *ought to think in addition* to the given concept, but what we *actually*, even if only obscurely, *think within it*. Here it becomes clear that the predicate attaches to that concept necessarily indeed, but not immediately: rather, through an intuition that must be added.

Section 3



§ 3.

Remark

On the General Division of Judgments into Analytic and Synthetic.

This division is indispensable for the critique of the human understanding, and therefore deserves to become *canonical* within it; otherwise I know of no considerable use it would have anywhere else. Here, too, I find the reason why dogmatic philosophers—who always sought the sources of metaphysical judgments only within metaphysics itself, and not outside it in the laws of pure reason in general—neglected this division, which seems to offer itself of its own accord. They could thus, like the celebrated *Wolff* or the acute *Baumgarten* who followed in his footsteps, seek in the principle of contradiction a proof of the principle of sufficient reason, which is plainly synthetic. In *Locke's* Essay Concerning Human Understanding, by contrast, I already find a hint of this division. For in Book Four, Chapter Three, § 9 and following—having already spoken earlier of the different connections of representations in judgments and of their sources, placing one in identity or contradiction (analytic judgments) and the other in the existence of representations in a subject (synthetic judgments)—he admits in § 10 that our cognition (a priori) of the latter is very limited, and almost nothing. Yet what he says of this kind of cognition is so little determined or brought under rules that we should not be surprised that no one, notably not even Hume, took it as an occasion to reflect on propositions

of this kind. For principles that are at once so universal and so determinate are not readily learned from others who had only a dim intimation of them. We must first have arrived at them through our own reflection; afterward we find them elsewhere too, where we certainly would not have encountered them first, since the authors themselves did not even know that such an idea underlay their own observations. Those who never think for themselves nevertheless possess the acumen to ferret out everything, once it has been shown to them, in what was said before, where no one could previously see it.

General questions



The General Question
of the Prolegomena:
Is Metaphysics Possible at All?

Section 4



§ 4.

If a metaphysics capable of maintaining its standing as a science actually existed; if we could say, “Here is metaphysics: you need only learn it, and it will convince you of its truth irresistibly and permanently,” then this question would be needless. Only the further question would remain, one that concerns a test of our acumen rather than a proof of the thing’s existence: *how it is possible*, and how reason sets about attaining it. But in this case human reason has not been so fortunate. We cannot point to a single book, as we might present a work of *Euclid*, and say: this is metaphysics; here you will find the chief aim of this science, cognition of a highest being and a future world, demonstrated from principles of pure reason. We can indeed be shown many propositions that are apodictically certain and have never been disputed; but they are all analytic, and concern the materials and building supplies for metaphysics rather than the enlargement of cognition that ought to be our proper purpose in pursuing it (§ 2, letter c). Even if you also present synthetic propositions—for example, the principle of sufficient reason—which you have never proved from reason alone, hence a priori, as was your duty, but which people nevertheless readily grant you, you still fall into such untenable and uncertain assertions when you try to use them for your principal aim that at all times one metaphysics has contradicted another, either in its assertions themselves or in their proofs, and thereby destroyed its own claim to lasting acceptance. Indeed,

attempts to bring such a science into being were undoubtedly the first cause of skepticism's early appearance: a way of thinking in which reason acts so violently against itself that it could have arisen only in complete despair of satisfying its most important aims. For long before people began to question nature methodically, they questioned only their own isolated reason, which ordinary experience had already exercised to some extent. They did so because reason is always present to us, whereas the laws of nature must generally be sought with difficulty. And so metaphysics floated on the surface like foam: as soon as what had been scooped up dissolved, more appeared on the surface, always eagerly gathered by some, while others, instead of seeking in the depths the cause of this appearance, thought themselves wise for laughing at the former's fruitless labor.

The essential feature distinguishing pure *mathematical* cognition from all other cognition a priori is that it must proceed *not from concepts* at all, but always only through the construction of concepts (Critique, page 713). Since in its propositions it must therefore go beyond the concept to what is contained in the intuition corresponding to it, its propositions can never—and should never—arise through the analysis of concepts, that is, analytically; hence they are all synthetic.

I cannot, however, refrain from noting the harm done to philosophy by neglecting this otherwise easy and seemingly insignificant observation. When *Hume* felt the calling, worthy of a philosopher, to cast his eyes over the whole field of pure cognition a priori, in which the human understanding lays claim to such vast possessions, he thoughtlessly cut off an entire province—indeed, the most important one—namely pure mathematics. He imagined that its nature and, so to speak, its constitution rested on quite different principles, namely on the principle of contradiction alone. Although he did not divide propositions as formally or universally, or under the same names, as I do here, it amounted to his saying: pure mathematics contains only *analytic* propositions, but metaphysics contains synthetic propositions a priori. In this he was greatly mistaken, and the mistake had decisively harmful consequences for his whole conception. Had he not made it, he would have extended his question about

the origin of our synthetic judgments far beyond his metaphysical concept of causality, to include the possibility of mathematics a priori; for he would have had to acknowledge mathematics as synthetic as well. But then he could by no means have grounded his metaphysical propositions on mere experience, since he would otherwise have subjected the axioms of pure mathematics to experience too, and he had far too much insight to do that. The good company in which metaphysics would then have found itself would have secured it against the danger of contemptuous mistreatment: the blows intended for metaphysics would also have had to strike mathematics, which was not, and could not have been, his intention. Thus this acute thinker would have been drawn into reflections that would have had to resemble those occupying us now, but which would have gained immeasurably from his inimitably beautiful presentation.

Properly metaphysical judgments are all synthetic. We must distinguish judgments *belonging to metaphysics* from judgments that are properly *metaphysical*. Among the former, very many are analytic; but they constitute only the means to metaphysical judgments, toward which the science's aim is wholly directed, and which are always synthetic. For if concepts belong to metaphysics—for example, the concept of substance—then judgments arising from their mere analysis necessarily belong to metaphysics as well: for example, substance is that which exists only as subject, and so forth. By means of several such analytic judgments we seek to approach the definition of the concepts. But the analysis of a pure concept of the understanding, such as metaphysics contains, proceeds no differently from the analysis of any other concept, including an empirical one not belonging to metaphysics—for example, air is an elastic fluid whose elasticity is not abolished by any known degree of cold. Thus the concept, but not the analytic judgment, is distinctively metaphysical. For this science has something special and distinctive in the generation of its cognitions a priori, which must therefore be distinguished from what it shares with all other cognitions of the understanding. Thus, for example, the proposition “Everything in things that is substance is permanent” is a synthetic and distinctively metaphysical proposition.

Once the concepts a priori that constitute the material and building supplies of metaphysics have been assembled according to certain principles, the analysis of these concepts is of great value. It can also be presented separately as a special part—a kind of *philosophia definitiva*, or philosophy of definitions—containing only analytic propositions belonging to metaphysics, apart from all the synthetic propositions that constitute metaphysics itself. For in fact these analyses have no considerable use anywhere except in metaphysics, that is, with a view to the synthetic propositions that are to be generated from those concepts after their initial analysis.

The conclusion of this section, then, is that metaphysics is properly concerned with synthetic propositions a priori, and these alone constitute its aim. For this it certainly needs many analyses of its concepts, hence analytic judgments; but the procedure here is no different from that in any other kind of cognition where we seek merely to make our concepts distinct by analyzing them. The generation of cognition a priori, however, both in intuition and in concepts, and finally also of synthetic propositions a priori—and specifically within philosophical cognition—constitutes the essential content of metaphysics.

Weary, then, of a dogmatism that teaches us nothing, and at the same time of a skepticism that promises us nothing at all, not even the repose of a permissible ignorance; summoned by the importance of the cognition we need, and made distrustful by long experience of every cognition we believe we possess, or that offers itself under the title of pure reason, we are left with only one critical question, whose answer can guide our future conduct: *Is metaphysics possible at all?* But this question must be answered not through skeptical objections to particular assertions of an actual metaphysics—for at present we acknowledge none—but from the still merely *problematic* concept of such a science.

In the *Critique of Pure Reason* I proceeded synthetically with regard to this question: I investigated pure reason itself and sought, in this very source, to determine according to principles both the elements and the laws of its pure use. This work is difficult. It requires a resolute reader to think his way gradually into a system that takes nothing as given for its foundation except reason

itself, and thus seeks, without relying on any fact, to unfold cognition from its original seeds. *Prolegomena*, by contrast, are to be preliminary exercises; they should indicate what must be done to bring a science into actuality if possible, rather than present the science itself. They must therefore rest on something already known to be reliable, from which we can confidently set out and ascend to sources not yet known, whose discovery will not only explain what we knew but also display a range of many cognitions all springing from those same sources. The methodical procedure of prolegomena, particularly those intended to prepare for a future metaphysics, will therefore be *analytic*.

Fortunately, however, although we cannot assume that metaphysics as a science is *actual*, we can confidently say that certain pure synthetic cognitions a priori are actual and given: namely, *pure mathematics* and *pure natural science*. Both contain propositions universally acknowledged, some as apodictically certain through reason alone, others through the universal agreement of experience, yet throughout as independent of experience. We therefore possess at least some *undisputed* synthetic cognition a priori, and need not ask whether it is possible—for it is actual—but only *how it is possible*, so that from the principle of the possibility of what is given we may also derive the possibility of all the rest.

Prolegomena.

General Question:

How Is Cognition from Pure Reason Possible?

Section 5



§ 5.

Above we saw the profound difference between analytic and synthetic judgments. The possibility of analytic propositions could be understood very easily, for it rests solely on the principle of contradiction. The possibility of synthetic propositions a posteriori—that is, those drawn from experience—likewise needs no special explanation, since experience itself is nothing but a continuous joining together, or synthesis, of perceptions. All that remains, then, are synthetic propositions a priori, whose possibility must be sought or investigated, since it must rest on principles other than the principle of contradiction.

But here we need not first seek the *possibility* of such propositions, that is, ask whether they are possible. Enough of them are actually given, and with indisputable certainty. Since the method we are now to follow is analytic, we shall begin from the actuality of such synthetic but pure rational cognition. Yet we must then investigate the ground of this possibility and ask *how* this cognition is possible, so that the principles of its possibility may enable us to determine the conditions of its use, its scope, and its boundaries. The proper problem, expressed with scholarly precision, on which everything depends, is therefore:

How Are Synthetic Propositions A Priori Possible?

For the sake of popular accessibility I expressed it somewhat differently above, namely as a question about cognition from pure reason. On this occasion I could do so without detriment to the insight sought: since our sole concern here is metaphysics and its sources, I hope the preceding reminders will always bring to mind that when we speak here of cognition from pure reason, we never mean analytic cognition, but only synthetic cognition.^[276-1]

The entire standing or falling of metaphysics, and thus its existence, depends on the solution of this problem. Someone may present his assertions in it with the greatest show of plausibility, piling inference upon inference until they overwhelm us; if he has not first been able to answer that question satisfactorily, I have the right to say: it is all vain, groundless philosophy and false wisdom. You speak through pure reason and presume, as it were, to create cognitions a priori: you do not merely analyze given concepts but claim new connections, which do not rest on the principle of contradiction and which you nevertheless suppose you discern quite independently of all experience. How, then, do you arrive at this, and how will you justify such presumptions? You cannot be permitted to appeal to the assent of universal human reason; that is a witness whose standing rests only on public rumor. *Quodcumque ostendis mihi sic, incredulus odi.* Whatever you show me in this way, I disbelieve and loathe. *Horat.*

Yet indispensable as the answer to this question is, it is equally difficult. Although the chief reason no one has long since sought to answer it is that no one even thought such a question could be asked, a second reason is that a satisfactory answer to this one question requires far more sustained, profound, and laborious reflection than the most extensive work of metaphysics ever did, though at its first appearance that work promised its author immortality. Indeed, every discerning reader who carefully considers this problem in the light of its demands must at first be alarmed by its difficulty and regard it as insoluble; and if such pure synthetic cognitions a priori did not actually exist, he would regard it as altogether impossible. This is what really happened to *David Hume*, although he did not represent the question to himself in nearly the universality it has here and must have if the answer is to decide the fate of all

metaphysics. For how is it possible, this acute thinker asked, that when a concept is given to me I can go beyond it and connect with it another that is not contained in it at all, and do so as though the latter *necessarily* belonged to the former? Only experience can supply us with such connections—so he concluded from that difficulty, which he took for impossibility—and all that supposed necessity, or, what amounts to the same thing, cognition held to be a priori, is nothing but a long habit of finding something true and therefore taking subjective necessity for objective.

If the reader complains of the trouble and effort I shall cause him by solving this problem, he need only try to solve it himself in an easier way. Perhaps he will then feel indebted to the person who has undertaken such deeply searching work for him, and be more inclined to express some surprise at the ease with which the solution could still be presented, given the nature of the matter. Indeed, it took years of effort to solve this problem in its full universality—in the sense in which mathematicians use the word, namely as sufficient for every case—and finally to be able to present it in the analytic form in which the reader will find it here.

All metaphysicians are accordingly solemnly and lawfully suspended from their occupations until they have satisfactorily answered the question: *How are synthetic cognitions a priori possible?* For this answer alone constitutes the credential they would have to produce if they have anything to submit to us in the name of pure reason. Without it, they can expect nothing but to be turned away by reasonable people, who have already been deceived so often, without any further examination of their submission.

If, on the other hand, they wish to pursue their occupation not as a *science* but as an *art* of salutary persuasion suited to common human understanding, they cannot fairly be denied this trade. They will then speak the modest language of rational faith. They will acknowledge that they are not permitted even to *conjecture*, let alone *know*, anything about what lies beyond the boundaries of all possible experience, but only to *assume* something—not for speculative use, which they must renounce, but solely for practical use—that is possible and even indispensable for guiding the understanding and the will in life. Only

in this way can they bear the name of useful and wise men, all the more so the more they renounce that of metaphysicians. For the latter wish to be speculative philosophers; and since judgments a priori cannot be staked on insipid probabilities—what is claimed to be known a priori is thereby announced as necessary—they cannot be permitted to play with conjectures. Their assertion must be science, or it is nothing at all.

We may say that the whole of transcendental philosophy, which must necessarily precede all metaphysics, is itself nothing but the complete solution of the question presented here, only in systematic order and full detail; and that hitherto, therefore, there has been no transcendental philosophy. For what goes by that name is really a part of metaphysics, whereas this science is first to establish the possibility of metaphysics and must therefore precede all of it. Nor should we be surprised that, when an entire science—and one deprived of all help from other sciences, thus wholly new in itself—is needed to answer a single question adequately, its solution involves labor and difficulty, indeed even some obscurity.

As we now proceed to this solution, and do so by the analytic method, in which we presuppose that such cognitions from pure reason are actual, we can appeal to only two *sciences* of theoretical cognition—the only kind at issue here—namely *pure mathematics* and *pure natural science*. Only these can exhibit objects to us in intuition and thus, if a cognition a priori occurs in them, show its truth, or agreement with the object, in concreto, that is, its *actuality*. From this we could then proceed along the analytic path to the ground of its possibility. This greatly eases the task, in which general considerations are not merely applied to facts but actually proceed from them; whereas in the synthetic procedure they must be derived wholly in abstracto from concepts.

But to ascend from these actual and at the same time well-founded pure cognitions a priori to a possible cognition of the kind we seek, namely metaphysics as a science, we need to include under our principal question what occasions it and underlies it as merely naturally given cognition a priori—though not beyond suspicion as regards its truth—the cultivation of which, without any critical investigation of its possibility, is ordinarily already called

metaphysics: in a word, the natural predisposition toward such a science; and thus the principal transcendental question, divided into four further questions, will be answered step by step.

- 1) *How is pure mathematics possible?*
- 2) *How is pure natural science possible?*
- 3) *How is metaphysics in general possible?*
- 4) *How is metaphysics as a science possible?*

We see that, although the solution of these problems is chiefly to present the essential content of the Critique, it nevertheless has something distinctive of its own that deserves attention even in its own right: namely, to seek for given sciences their sources in reason itself, and thus, through reason's actual achievement, to investigate and measure its capacity to cognize something a priori. In this way these sciences themselves gain, if not in their content, at least in their proper use; and as they illuminate a higher question concerning their common origin, they also provide an occasion to clarify their own nature better.

[²⁷⁶-1]: As cognition gradually advances, it is impossible to prevent certain expressions that have already become canonical, but still date from the science's childhood, from eventually proving inadequate and ill-suited, or a new and more appropriate use from running some risk of confusion with the old. The analytic method, insofar as it is opposed to the synthetic, is something entirely different from a collection of analytic propositions. It means only that we begin from what is sought as though it were given and ascend to the conditions under which alone it is possible. This manner of exposition often employs nothing but synthetic propositions, as mathematical analysis shows; and it might better be called the *regressive* manner of exposition, as distinct from the synthetic or *progressive*. The name "analytic" also occurs as a principal division of logic, where it is the logic of truth and is opposed to dialectic, without regard, properly speaking, to whether the cognitions belonging to it are analytic or synthetic.

First part: How is pure mathematics possible?



The Principal Transcendental Question

First Part.

How Is Pure Mathematics Possible?

Section 6



§ 6.

Here, then, is a great and proven body of cognition, already admirable in extent and promising boundless expansion in the future. Throughout, it carries apodictic certainty—that is, absolute necessity—and thus rests on no grounds of experience; it is therefore a pure product of reason, yet is also synthetic through and through. “How, then, is it possible for human reason to bring about such cognition wholly a priori?” Since this capacity does not and cannot rest on experiences, does it not presuppose some ground of cognition a priori, lying deeply hidden, which might reveal itself through these effects if only we diligently traced them to their first beginnings?

Section 7



§ 7.

We find, however, that all mathematical cognition has this distinctive feature: it must first exhibit its concept *in intuition*, and do so a priori, hence in an intuition that is not empirical but pure; without this means it cannot take a single step. Its judgments are therefore always *intuitive*, whereas philosophy must content itself with *discursive* judgments, *from mere concepts*, and may indeed elucidate its apodictic teachings through intuition, but can never derive them from it. This observation about the nature of mathematics already guides us to the first and highest condition of its possibility: some *pure intuition* must underlie it, in which it can exhibit all its concepts in concreto and yet a priori—or, as it is called, *construct* them.^[281-1] If we can discover this pure intuition and the possibility of such an intuition, it will be easy to explain how synthetic propositions a priori are possible in pure mathematics, and thus how this science itself is possible. For just as empirical intuition makes it possible without difficulty for us synthetically to enlarge, in experience, the concept we form of an object of intuition by adding new predicates supplied by intuition itself, so pure intuition will do the same. There is only this difference: in the latter case the synthetic judgment will be certain a priori and apodictic, whereas in the former it will be certain only a posteriori and empirically. For the empirically certain judgment contains only what is encountered in contingent empirical intuition, whereas the a priori judgment contains what must necessarily be

encountered in pure intuition, since this intuition, as intuition a priori, is inseparably connected with the concept *before all experience* or particular perception.

[²⁸¹-1]: See Critique, page 713.

Section 8



§ 8.

Yet at this step the difficulty seems to grow rather than diminish. For the question now reads: *how is it possible to intuit something a priori?* Intuition is a representation of the sort that would depend immediately on the presence of the object. It therefore seems impossible to intuit a priori *originally*, since the intuition would then have to occur without an object, present either previously or now, to which it referred, and thus could not be intuition. Concepts, to be sure, are such that we can quite well form some of them a priori—namely, those containing only the thinking of an object in general—without standing in an immediate relation to the object: for example, the concept of magnitude, of cause, and so forth. But even these require a certain use in concreto to give them significance and sense: that is, application to some intuition through which an object corresponding to them is given to us. Yet how can intuition of the object precede the object itself?

Section 9



§ 9.

If our intuition had to be of such a kind that it represented things *as they are in themselves*, no intuition a priori could occur; it would always be empirical. For I can know what is contained in the object in itself only when it is present and given to me. Even then, admittedly, it is incomprehensible how the intuition of a present thing should allow me to cognize it as it is in itself, since its properties cannot migrate into my power of representation. But even granting this possibility, such intuition would not occur a priori, that is, before the object was represented to me; for without this no ground could be conceived for my representation's relation to it, unless that representation rested on inspiration. There is therefore only one way in which my intuition can precede the actuality of the object and occur as cognition a priori: *if it contains nothing but the form of sensibility, which in me as subject precedes all the actual impressions through which I am affected by objects*. For I can know a priori that objects of the senses can be intuited only in accordance with this form of sensibility. It follows that propositions concerning this form of sensible intuition alone will be possible and valid for objects of the senses; and conversely, that intuitions possible a priori can never concern anything other than objects of our senses.

Section 10



§ 10.

It is therefore only through the form of sensible intuition that we can intuit things a priori; but through it we cognize objects only as they can *appear* to us—to our senses—not as they may be in themselves. This presupposition is absolutely necessary if synthetic propositions a priori are to be admitted as possible or, where they are actually found, if their possibility is to be understood and determined in advance.

Now space and time are the intuitions on which pure mathematics bases all its cognitions and judgments, which at the same time present themselves as apodictic and necessary. For mathematics must first exhibit all its concepts in intuition, and pure mathematics in pure intuition—that is, it must construct them. Without this, it is impossible for mathematics to take a step, because it can proceed not analytically, by analyzing concepts, but synthetically: so long as it lacks pure intuition, it lacks the sole medium in which the material for synthetic judgments a priori can be given. Geometry takes the pure intuition of space as its foundation. Arithmetic itself produces its concepts of number by the successive addition of units in time; above all, pure mechanics can produce its concepts of motion only by means of the representation of time. Both representations, however, are merely intuitions. For if we leave out of the empirical intuitions of bodies and their alterations—motion—everything empirical, namely what belongs to sensation, space and time still remain. They are there-

fore pure intuitions, underlying those empirical intuitions a priori, and for this reason can never themselves be left out. But precisely because they are pure intuitions a priori, they prove that they are mere forms of our sensibility, which must precede all empirical intuition, that is, the perception of actual objects, and in accordance with which objects can be cognized a priori—though, to be sure, only as they appear to us.

Section 11



§ 11.

The problem of the present division is therefore solved. Pure mathematics is possible as synthetic cognition a priori only because it concerns no objects other than mere objects of the senses, whose empirical intuition is grounded a priori in a pure intuition—of space and time. This intuition can underlie it because it is nothing but the mere form of sensibility, which precedes the actual appearance of objects by first making that appearance possible. Yet this capacity to intuit a priori concerns not the matter of appearance—that is, what in it is sensation, for this constitutes the empirical—but only its form, space and time. If anyone wished to doubt in the slightest that these are determinations attaching not at all to things in themselves, but merely to their relation to sensibility, I should like to know how he can find it possible to know a priori, and thus before all acquaintance with things, before they are given to us, what their intuition must be like—as is the case here with space and time. But this is entirely comprehensible as soon as the two are taken to be nothing more than formal conditions of our sensibility, and the objects merely appearances. For then the form of appearance, that is, pure intuition, can indeed be represented from ourselves, that is, a priori.

Section 12



§ 12.

To add something by way of elucidation and confirmation, we need only consider the usual and indispensably necessary procedure of geometers. All proofs of the complete equality of two given figures—where one can be substituted for the other in every respect—ultimately come down to their coinciding with one another. This is plainly nothing but a synthetic proposition resting on immediate intuition; and this intuition must be pure and given a priori, for otherwise that proposition could not count as apodictically certain, but would have only empirical certainty. It would mean only that this is always observed to be so, and would hold only as far as our perception had hitherto extended. That complete space—which is itself no longer the boundary of another space—has three dimensions, and that space in general can have no more, is based on the proposition that no more than three lines can intersect at right angles at a single point. But this proposition cannot be demonstrated from concepts at all: it rests immediately on intuition, indeed pure intuition a priori, because it is apodictically certain. That we can demand that a line be drawn on indefinitely (in indefinitum), or that a series of alterations—for example, spaces traversed by motion—be continued indefinitely, presupposes a representation of space and time that can attach only to intuition, namely insofar as intuition is in itself bounded by nothing; for it could never be inferred from concepts. Pure intuitions a priori therefore really do underlie mathematics and make possible its

synthetic propositions with their apodictic validity. Hence our transcendental deduction of the concepts in space and time also explains the possibility of a pure mathematics. Without such a deduction, and without our assuming that “everything that may be given to our senses—to the outer senses in space, to the inner sense in time—is intuited by us only as it appears to us, not as it is in itself,” that possibility could indeed be conceded, but by no means understood.

Section 13



§ 13.

Those who still cannot free themselves from the notion that space and time are actual characteristics attaching to things in themselves may exercise their acumen on the following paradox. If their attempts to solve it prove fruitless, they may, free of prejudice for at least a few moments, suspect that there might after all be grounds for demoting space and time to mere forms of our sensible intuition.

If two things are completely identical in every respect that can be cognized in each taken by itself—in all determinations belonging to magnitude and quality—it must surely follow that one can be substituted for the other in every case and relation without this exchange causing the slightest discernible difference. This is indeed so with plane figures in geometry. But various spherical figures, despite that complete inner agreement, nevertheless show such a difference in their external relation that one cannot be substituted for the other at all. For example, two spherical triangles in opposite hemispheres, sharing an arc of the equator as their common base, can be completely equal in both sides and angles, so that a complete description of either one taken alone contains nothing that is not also contained in the description of the other; and yet one cannot be substituted for the other, namely in the opposite hemisphere. Here, then, there is an inner difference between the two triangles that no understand-

ing can specify as internal, and that reveals itself only through their external relation in space. But I shall offer more familiar cases that can be drawn from everyday life.

What could be more like my hand or my ear, and more equal to it in every respect, than its image in a mirror? Yet I cannot substitute such a hand as is seen in the mirror for its original. For if the original was a right hand, the one in the mirror is a left; and the image of the right ear is a left ear, which can never take the former's place. Now here there are no inner differences that any understanding could so much as think; yet the differences are internal, as far as the senses teach, since the left hand, despite all the equality and similarity on both sides, cannot be enclosed within the same boundaries as the right—they cannot be congruent. The glove of one hand cannot be used on the other. What, then, is the solution? These objects are not representations of things as they are in themselves and as pure understanding would cognize them. Rather, they are sensible intuitions, that is, appearances whose possibility rests on the relation of certain things, unknown in themselves, to something else, namely our sensibility. Space is the form of this sensibility's outer intuition, and the inner determination of any particular space is possible only through the determination of its external relation to the whole space of which it is a part—its relation to outer sense. That is, the part is possible only through the whole, which never occurs with things in themselves as objects of mere understanding, but does occur with mere appearances. Hence we cannot make the difference between things that are similar and equal yet incongruent—for example, spiral shells winding in opposite directions—intelligible through any single concept, but only through their relation to the right and left hands, which refers immediately to intuition.

Remark I.

Pure mathematics, and pure geometry in particular, can have objective reality only on the sole condition that it concerns merely objects of the senses. With regard to these objects, however, the principle stands firm: our sensible representation is by no means a representation of things in themselves, but only of the way they appear to us. It follows that the propositions of geometry are

not determinations of a mere creature of our inventive imagination, incapable of being reliably related to actual objects. Rather, they necessarily hold of space, and therefore also of everything that may be encountered in space, because space is nothing but the form of all outer appearances, under which alone objects of the senses can be given to us. Sensibility, whose form geometry takes as its foundation, is that on which the possibility of outer appearances rests; these can therefore never contain anything other than what geometry prescribes to them. It would be quite otherwise if the senses had to represent objects as they are in themselves. For then it would by no means follow, from the representation of space with all the various properties the geometer assumes a priori as his foundation, that all this, together with what is inferred from it, must be just so in nature. The geometer's space would be considered a mere invention, and no objective validity would be credited to it, since there is simply no seeing why things must necessarily agree with the image we form of them by ourselves and in advance. But if this image—or rather this formal intuition—is the essential property of our sensibility, through which alone objects are given to us, and if this sensibility represents not things in themselves but only their appearances, then it is quite easy to understand, and at the same time indisputably proved, that all outer objects of our sensible world must necessarily agree with the propositions of geometry with perfect exactness. For sensibility, through its form of outer intuition—space—with which the geometer concerns himself, first makes these objects themselves possible as mere appearances. It will always remain a remarkable phenomenon in the history of philosophy that there was a time when even mathematicians who were also philosophers began to doubt, not indeed the correctness of their geometrical propositions insofar as these concerned space alone, but the objective validity and application to nature of this concept itself and all its geometrical determinations. They feared that a line in nature might after all consist of physical points, and hence that true space in the object might consist of simple parts, although the space the geometer has in mind cannot possibly consist of them. They failed to recognize that this space in thought makes physical space—that is, the extension of matter itself—possible; that space is not a characteristic of things in themselves at all, but only a

form of our sensible power of representation; that all objects in space are mere appearances, that is, not things in themselves but representations of our sensible intuition; and that, since space as the geometer thinks it is precisely the form of sensible intuition that we find in ourselves a priori, containing the ground of the possibility of all outer appearances as regards their form, these appearances must necessarily and with the greatest precision agree with the geometer's propositions. He draws these not from an invented concept but from the subjective foundation of all outer appearances, namely sensibility itself. In this way, and no other, the geometer can be secured against all the quibbles of a shallow metaphysics concerning the undoubted objective reality of his propositions, however strange they must appear to that metaphysics, since it does not return to the sources of its concepts.

Remark II.

Everything that is to be given to us as an object must be given to us in intuition. But all our intuition takes place only through the senses; the understanding intuits nothing, but only reflects. Now, according to what has just been proved, the senses never and in no respect allow us to cognize things in themselves, but only their appearances; and these are mere representations of sensibility. "Thus all bodies, together with the space in which they are situated, must be held to be nothing but mere representations in us, and exist nowhere else but merely in our thoughts." Is this not manifest idealism?

Idealism consists in the assertion that there are none but thinking beings; the other things we believe we perceive in intuition are only representations in thinking beings, to which in fact no object outside these beings corresponds. I, by contrast, say: things are given to us as objects of our senses situated outside us, but of what they may be in themselves we know nothing; we know only their appearances, that is, the representations they produce in us by affecting our senses. Accordingly, I certainly admit that there are bodies outside us: that is, things which, though entirely unknown to us as regards what they may be in themselves, we know through the representations that their influence on our sensibility supplies us, and to which we give the name of a body. This word

therefore signifies merely the appearance of that object, unknown to us but nonetheless actual. Can this really be called idealism? It is precisely the opposite.

That we can say of a multitude of the predicates of outer things, without detriment to their actual existence, that these predicates belong not to the things in themselves but only to their appearances, and have no existence of their own outside our representation, is something that was generally accepted and conceded long before *Locke's* time, but especially afterward. Heat, color, taste, and so forth belong here. But for important reasons I also count among mere appearances, in addition to these, the remaining qualities of bodies that are called primary: extension, place, and space in general, with everything attaching to it—impenetrability or materiality, shape, and so forth. Not the slightest ground for denying the legitimacy of this can be offered. Someone who regards colors not as properties attaching to the object in itself, but only as modifications attaching to the sense of sight, cannot be called an idealist on that account; no more can my doctrine be called idealistic merely because I find that still more, indeed *all properties constituting the intuition of a body*, belong only to its appearance. For the existence of the thing that appears is not thereby abolished, as it is in genuine idealism; it is only shown that through the senses we cannot cognize it at all as it is in itself.

I should like to know what my assertions would have to be like, then, in order not to contain an idealism. No doubt I would have to say that the representation of space is not merely in perfect accord with the relation our sensibility bears to objects—for I have said this—but is even completely similar to the object. This is an assertion to which I can attach no sense, any more than to the assertion that the sensation of red bears a similarity to the property of cinnabar that arouses this sensation in me.

Remark III.

We can now easily dismiss an objection that is easy to foresee but groundless: “that through the ideality of space and time the entire sensible world would be transformed into sheer illusion.” First, all philosophical insight into the nature of sensible cognition had been spoiled by making sensibility consist

merely in a confused way of representing things, according to which we still cognized things as they are, only without the capacity to bring everything in this representation of ours to clear consciousness. We, by contrast, have proved that sensibility consists not in this logical distinction of clarity or obscurity, but in the genetic distinction concerning the origin of cognition itself: sensible cognition does not represent things as they are at all, but only the way they affect our senses; thus through it only appearances, not the things themselves, are given to the understanding for reflection. After this necessary correction, an objection arises from an inexcusable and almost deliberate misinterpretation, as though my doctrine transformed all things in the sensible world into sheer illusion.

When an appearance is given to us, we remain entirely free as to how we wish to judge the thing on its basis. The former, namely appearance, rested on the senses, but this judgment rests on the understanding; the only question is whether there is truth in the determination of the object or not. The difference between truth and dream, however, is not settled by the character of the representations referred to objects, since these are the same in both cases. It is settled by their connection according to the rules determining the coherence of representations in the concept of an object, and by the extent to which they can or cannot coexist in one experience. Here it is not the fault of appearances if our cognition takes illusion for truth: that is, if the intuition through which an object is given to us is taken for a concept of the object, or even of its existence, which the understanding alone can think. The senses represent the planets' course to us now as forward, now as backward, and in this there is neither falsehood nor truth. As long as we recognize that for the present this is only appearance, we make no judgment at all about the objective character of their motion. But since a false judgment can easily arise if the understanding does not take proper care to prevent this subjective way of representing from being taken as objective, we say that they seem to move backward. Yet the illusion is not charged to the senses, but to the understanding, to which alone it belongs to make an objective judgment from the appearance.

In this way, even if we did not reflect at all on the origin of our representations, but connected our sensible intuitions, whatever they might contain, in space and time according to the rules governing the coherence of all cognition in one experience, either deceptive illusion or truth could arise, depending on whether we were careless or cautious. This concerns solely the use of sensible representations in the understanding, not their origin. Likewise, if I regard all representations of the senses, together with their form, namely space and time, as nothing but appearances, and the latter as a mere form of sensibility not encountered in objects outside it, and if I use these representations only in relation to possible experience, then my regarding them as mere appearances contains not the slightest inducement to error or illusion. For despite this they can cohere correctly in experience according to the rules of truth. In this way all geometrical propositions about space hold equally of all objects of the senses, hence of all possible experience, whether I regard space as a mere form of sensibility or as something attaching to things themselves. Yet only in the former case can I understand how it is possible to know those propositions a priori of all objects of outer intuition. Otherwise, as regards all possible experience, everything remains just as though I had never undertaken this departure from common opinion.

But if I venture with my concepts of space and time beyond all possible experience, an important error can arise that rests on an illusion. Such a venture is unavoidable if I declare them to be characteristics attaching to things in themselves—for what would then prevent me from holding that they apply to those very things, even if my senses were differently constituted, whether or not they were suited to those things? The error arises when I declare universally valid what was a condition of the intuition of things attaching merely to me as subject, and certainly valid for all objects of the senses, hence for all possible experience, because I refer it to things in themselves rather than restrict it to conditions of experience.

Thus, far from making the whole sensible world into mere illusion, my doctrine of the ideality of space and time is rather the only means of securing the application to actual objects of one of the most important kinds of cognition

of all—namely, what mathematics sets forth a priori—and preventing it from being taken for mere illusion. Without this observation it would be wholly impossible to determine whether the intuitions of space and time, which we borrow from no experience and which nevertheless lie a priori in our representation, were merely self-made fantasies to which no object corresponded, at least not adequately, and whether geometry itself was therefore a mere illusion. By contrast, we have been able to demonstrate its indisputable validity for all objects of the sensible world precisely because these are mere appearances.

Second, far from transforming the truth of experience into mere illusion by making representations of the senses into appearances, these principles of mine are rather the only means of preventing the transcendental illusion by which metaphysics has always been deceived and thereby led into the childish endeavor to catch soap bubbles, because appearances, which are mere representations, were taken for things in themselves. From this arose all those remarkable episodes of the antinomy of reason that I shall mention later. This antinomy is resolved by the single observation that appearance, so long as it is used in experience, produces truth; but as soon as it passes beyond experience's boundary and becomes transcendent, it produces nothing but sheer illusion.

Since, then, I leave their actuality to the things we represent to ourselves through the senses, and restrict only our sensible intuition of these things by saying that in no respect—not even in the pure intuitions of space and time—does it represent anything more than mere appearance of those things, never their character as they are in themselves, this is no pervasive illusion I have fictitiously ascribed to nature. My protest against every imputation of idealism is so conclusive and clear that it would even seem superfluous if there were not unauthorized judges ready to substitute their own delusion for well-determined concepts and thereby twist and disfigure them: judges who would like an old name for every departure from their mistaken though common opinion, and who never judge the spirit of philosophical terms but cling merely to the letter. For my having given this theory of mine the name of transcendental idealism cannot entitle anyone to confuse it with the empirical idealism of *Descartes*—although his was only a problem, whose insolubility, in *Descartes's* opinion, left

everyone free to deny the existence of the corporeal world, since it could never be answered satisfactorily—or with the mystical and visionary idealism of *Berkeley*, against which, and other similar fantasies, our Critique in fact contains the proper antidote. For this idealism, as I called it, concerned not the existence of things—doubting this is what really constitutes idealism in the received meaning, and it never occurred to me to doubt it—but only the sensible representation of things, to which space and time belong first and foremost. Of these, and thus of all appearances in general, I have shown only that they are not things, but mere ways of representing, nor determinations belonging to things in themselves. The word “transcendental,” however, which for me never signifies a relation of our cognition to things, but only to the *faculty of cognition*, was meant to prevent this misinterpretation. Rather than let it occasion the same misunderstanding in the future, I prefer to withdraw this designation and wish my idealism to be called *critical*. But if it is indeed a reprehensible idealism to transform actual things—not appearances—into mere representations, what name shall we give the idealism that, conversely, makes mere representations into things? I think it can be called *dreaming* idealism, as distinct from the former, which may be called *visionary*; both, through my otherwise should have been kept from so-called transcendental, or better, *critical* idealism.

Second part: How is pure natural science possible?



The Main Transcendental Question

Second Part.

How is pure natural science possible?

Section 14



§ 14.

Nature is the *existence* of things insofar as it is determined according to universal laws. If nature meant the existence of things in themselves, we could never cognize it, either a priori or a posteriori. Not a priori: for how could we know what belongs to things in themselves, since this can never be accomplished by analyzing our concepts (through analytic propositions)? What I want to know is not what is contained in my concept of a thing—for that belongs to its logical essence—but what, in the thing's actuality, is added to this concept, and what determines the thing itself in its existence outside my concept. My understanding, and the conditions under which alone it can connect the determinations of things in their existence, prescribe no rule to the things themselves. They do not conform to my understanding; rather, my understanding would have to conform to them. They would therefore have to be given to me beforehand, so that I could derive these determinations from them; but then they would not be cognized a priori.

Nor would such cognition of the nature of things in themselves be possible a posteriori. For if experience is to teach me the *laws* governing the existence of things, then these laws, insofar as they concern things in themselves, would have to belong to them *necessarily*, even beyond my experience. Now experi-

ence does indeed teach me what exists and how it is, but never that it must necessarily be so and not otherwise. Thus it can never teach me the nature of things in themselves.

Section 15



§ 15.

Yet we do in fact possess a pure natural science, which sets forth a priori, and with all the necessity required of apodictic propositions, laws to which nature is subject. I need only call as witness here that preliminary study of nature which, under the title of general natural science, precedes all physics (which is grounded on empirical principles). In it we find mathematics applied to appearances, as well as merely discursive principles (drawn from concepts), which constitute the philosophical part of pure cognition of nature. Yet it also contains much that is not entirely pure and independent of experiential sources: the concepts of *motion*, of *impenetrability* (on which the empirical concept of matter rests), of *inertia*, and others, which prevent it from being called a wholly pure natural science. Moreover, it concerns only the objects of the outer senses, and so provides no example of a universal natural science in the strict sense. For such a science must bring nature in general under universal laws, whether it concerns the object of the outer senses or that of inner sense—the object of physics as well as of psychology. But among the principles of that general physics there are some that really do possess the universality we require: for instance, the proposition *that substance remains* and persists; *that everything that happens* is always *determined beforehand by a cause* according to constant

laws; and so on. These are truly universal laws of nature, which hold entirely a priori. Thus there actually is a pure natural science, and the question now is: *how is it possible?*

Section 16



§ 16.

The word nature also takes on another meaning, one that determines the *object*, whereas in the meaning given above it indicated only the *lawfulness* of the determinations of the existence of things in general. Nature, then, considered materialiter, is the *sum total of all objects of experience*. This alone concerns us here. For if things that can never become objects of experience were to be cognized as to their nature, they would compel us to employ concepts whose meaning could never be given in concreto (in any example of a possible experience). Of their nature, therefore, we would have to form nothing but concepts whose reality—that is, whether they actually refer to objects or are mere things of thought—could not be decided at all. Cognition of what cannot be an object of experience would be hyperphysical. Here we are not concerned with anything of that kind, but with cognition of nature whose reality can be confirmed through experience, even though it is possible a priori and precedes all experience.

Section 17



§ 17.

The *formal* aspect of nature in this narrower sense is therefore the lawfulness of all objects of experience and, insofar as it is cognized a priori, their *necessary* lawfulness. But we have just shown that the laws of nature can never be cognized a priori in objects insofar as these are considered not in relation to possible experience, but as things in themselves. Here, however, we are not concerned with things in themselves—we leave their properties undecided—but only with things as objects of a possible experience; and it is properly their sum total that we here call nature. I now ask whether, when the possibility of an a priori cognition of nature is at issue, it is better to frame the problem this way: how is it possible to cognize a priori the necessary lawfulness *of things* as objects of experience? Or this way: how is it possible to cognize a priori the necessary lawfulness *of experience* itself with respect to all its objects in general?

On closer examination, the answer to the question, however it is framed, will come to precisely the same thing as regards pure cognition of nature, which is the real point at issue. For the subjective laws under which alone an experiential cognition of things is possible also hold for those things as objects of a possible experience—though certainly not for them as things in themselves, which are not under consideration here. It is entirely the same whether I say: without the law that, whenever an event is perceived, it must always be referred to some-

thing preceding it, upon which it follows according to a universal rule, no judgment of perception can ever count as experience; or whether I express myself this way: everything that experience teaches us to occur must have a cause.

Nevertheless, it is more appropriate to choose the former formulation. For we can indeed have cognition, a priori and prior to all given objects, of the conditions under which alone an experience of them is possible, but never of the laws to which they may be subject in themselves, without reference to possible experience. We can therefore study the nature of things a priori only by investigating the conditions and universal (though subjective) laws under which alone such cognition is possible as experience, in respect of its mere form, and by then determining accordingly the possibility of things as objects of experience. For if I chose the second mode of expression and sought the a priori conditions under which nature is possible as an *object* of experience, I could easily fall into a misunderstanding and imagine that I was speaking of nature as a thing in itself. I would then be driven fruitlessly through endless efforts to seek laws for things of which nothing is given to me.

Here, then, we shall concern ourselves solely with experience and the universal, a priori given conditions of its possibility, and from these determine nature as the entire object of all possible experience. I trust it will be understood that I do not mean here the rules for *observing* a nature already given: these already presuppose experience. Thus I do not mean how we can learn nature's laws from it through experience, for these would then not be a priori laws and would yield no pure natural science. I mean, rather, how the a priori conditions of the possibility of experience are at the same time the sources from which all universal laws of nature must be derived.

Section 18



§ 18.

We must therefore first observe that although all judgments of experience are empirical—that is, grounded in the immediate perception of the senses—the converse does not hold: not all empirical judgments are therefore judgments of experience. Rather, beyond the empirical element, and in general beyond what is given to sensible intuition, special concepts must also be added. These have their origin entirely a priori in the pure understanding; every perception must first be subsumed under them, and can then, by their means, be transformed into experience.

*Empirical judgments, insofar as they have objective validity, are **judgments of experience**; those, however, that are only subjectively valid I call mere **judgments of perception**.* The latter require no pure concept of the understanding, but only the logical connection of perceptions in a thinking subject. The former, however, always require, beyond the representations of sensible intuition, special *concepts originally generated in the understanding*, which are precisely what make the judgment of experience *objectively valid*.

All our judgments are at first mere judgments of perception: they hold only for us, that is, for our subject. Only afterward do we give them a new relation, namely to an object, and intend that the judgment should hold for us at all times, and equally for everyone else. For if a judgment agrees with an object, all judgments concerning that same object must also agree with one another; thus

the objective validity of a judgment of experience means nothing other than its necessary universal validity. Conversely, if we find reason to regard a judgment as necessarily universally valid—which never rests on perception, but on the pure concept of the understanding under which the perception is subsumed—we must also regard it as objective: that is, as expressing not merely a relation of perception to a subject, but a property of the object. For there would be no reason why the judgments of others should necessarily agree with mine, were it not for the unity of the object to which they all refer, with which they agree, and so must all agree with one another.

Section 19



§ 19.

Objective validity and necessary universal validity (for everyone) are therefore interchangeable concepts. Although we do not know the object in itself, when we regard a judgment as universally valid and hence necessary, it is precisely its objective validity that we mean. Through this judgment we cognize the object—even if it otherwise remains unknown as it may be in itself—through the universally valid and necessary connection of the given perceptions. Since this is the case with all objects of the senses, judgments of experience will derive their objective validity not from immediate cognition of the object (for this is impossible), but solely from the condition for the universal validity of empirical judgments. As has been said, this condition never rests on empirical, or indeed on any sensible, conditions, but on a pure concept of the understanding. The object in itself always remains unknown; but when the connection of the representations it gives to our sensibility is determined as universally valid through the concept of the understanding, the object is determined through this relation, and the judgment is objective.

Let us make this clear: that the room is warm, the sugar sweet, the wormwood disagreeable^[299-1]—these are merely subjectively valid judgments. I do not at all demand that I should always find it so, or that everyone else should find it as I do. They express only a relation of two sensations to the same subject, namely myself, and only in my present state of perception; they are there-

fore not intended to hold of the object. I call such judgments *judgments of perception*. A judgment of experience is quite another matter. What experience teaches me under certain circumstances, it must teach me at all times, and everyone else as well; its validity is not confined to the subject or to the subject's state at the time. I therefore pronounce all such judgments to be objectively valid. For example, when I say that air is elastic, this judgment is initially only a judgment of perception: I merely relate two sensations in my senses to one another. If I intend it to be called a judgment of experience, I demand that this connection stand under a condition that makes it universally valid. Thus I require that I, at all times, and everyone else too, must necessarily connect the same perception under the same circumstances.

[²⁹⁹-1]: I readily admit that these examples do not present judgments of perception that could ever become judgments of experience, even if a concept of the understanding were added. For they refer merely to feeling, which everyone recognizes as merely subjective and which therefore must never be ascribed to the object; thus they can never become objective. For the moment I wished only to give an example of a judgment that is merely subjectively valid and contains in itself no ground for necessary universal validity and thereby for a relation to the object. An example of judgments of perception that become judgments of experience through the addition of a concept of the understanding follows in the next note.

Section 20



§ 20.

We must therefore analyze experience in general, to see what is contained in this product of the senses and the understanding, and how the judgment of experience itself is possible. At its foundation lies the intuition of which I am conscious, that is, perception (*perceptio*), which belongs solely to the senses. But, second, judging also belongs to it, and this belongs solely to the understanding. This judging can take two forms: either I merely compare the perceptions and connect them in a consciousness of my state, or I connect them in a consciousness in general. The first judgment is merely a judgment of perception and as such has only subjective validity; it is merely a connection of perceptions in my mental state, without reference to the object. Hence, contrary to the common supposition, it is not enough for experience to compare perceptions and connect them in one consciousness by means of judging. This gives rise to no universal validity and necessity of the judgment, through which alone it can be objectively valid and be experience.

Thus a quite different judgment must precede, before perception can become experience. The given intuition must be subsumed under a concept that determines the form of judging in general with respect to the intuition, connects the empirical consciousness of the latter in a consciousness in general, and thereby gives empirical judgments universal validity. Such a concept is a pure *a priori* concept of the understanding, which does nothing but determine

for an intuition, in general, the way in which it can serve for judgments. Let such a concept be the concept of cause. It then determines the intuition subsumed under it—for example, that of air—with respect to judging in general: namely, that the concept of air, with respect to expansion, should serve in the relation of antecedent to consequent in a hypothetical judgment. The concept of cause is therefore a pure concept of the understanding, entirely distinct from any possible perception, serving only to determine the representation contained under it with respect to judging in general, and thus to make a universally valid judgment possible.

Now before a judgment of perception can become a judgment of experience, the first requirement is that the perception be subsumed under such a concept of the understanding. For example, air falls under the concept of cause, which determines the judgment concerning it, with respect to expansion, as hypothetical.^[301-1] This expansion is thereby represented not as belonging merely to my perception of air in my present state, or in several of my states, or in the perceptual state of others, but as belonging to it *necessarily*. The judgment that air is elastic becomes universally valid, and only thereby a judgment of experience, because certain judgments precede it that subsume the intuition of air under the concept of cause and effect. They thereby determine the perceptions not merely in relation to one another in my subject, but with respect to the form of judging in general—here the hypothetical form—and in this way make the empirical judgment universally valid.

If we analyze all our synthetic judgments insofar as they hold objectively, we find that they never consist of mere intuitions connected in a judgment simply by comparison, as is commonly supposed. Rather, they would be impossible unless, beyond the concepts abstracted from intuition, a pure concept of the understanding had also been added, under which those concepts were subsumed and thus first connected in an objectively valid judgment. Even the judgments of pure mathematics in its simplest axioms are not exempt from this condition. The principle that a straight line is the shortest between two points presupposes that the line is subsumed under the concept of magnitude. This is certainly no mere intuition, but has its seat solely in the understanding, and serves

to determine the intuition of the line, with regard to the judgments that may be made about it, as to their quantity—namely plurality (as iudicia plurativa).^[302-1] For these judgments mean that a given intuition contains many things of the same kind.

^[301-1]: For an example that is easier to grasp, consider the following: when the sun shines on the stone, it grows warm. This judgment is a mere judgment of perception and contains no necessity, however often I and others may have perceived this; the perceptions are only habitually found connected in this way. But if I say that the sun *warms* the stone, then beyond the perception the understanding's concept of cause is added, which *necessarily* connects the concept of sunshine with that of heat. The synthetic judgment becomes necessarily universally valid, and hence objective, and is transformed from a perception into experience.

^[302-1]: I would prefer this name for the judgments that in logic are called particularia. For the latter expression already contains the thought that they are not universal. But if I begin with unity (in singular judgments) and thus proceed to totality, I cannot yet introduce any reference to totality: I think only plurality without totality, not an exception to it. This is necessary if the logical moments are to be made the basis of the pure concepts of the understanding; in logical use, matters may be left as they are.

Section 21



§ 21.

To set forth the possibility of experience insofar as it rests on pure a priori concepts of the understanding, we must therefore first present in a complete table what belongs to judging in general, and the various moments of the understanding within it. For the pure concepts of the understanding will correspond to them in exact parallel: these are nothing more than concepts of intuitions in general, insofar as the intuitions are in themselves determined for judging with respect to one or another of these moments, and hence necessarily and with universal validity. This will also determine precisely the a priori principles of the possibility of all experience as objectively valid empirical cognition. For these are nothing other than propositions that subsume all perception, according to certain universal conditions of intuition, under those pure concepts of the understanding.

Logical Table

of Judgments.

		1.		
	---		---	
		<i>By Quantity</i>		
		Universal		
		Particular		
		Singular		

2.	3.
<i>By Quality</i>	<i>By Relation</i>
Affirmative	Categorical
Negative	Hypothetical
Infinite	Disjunctive
4.	
<i>By Modality</i>	
Problematic	
Assertoric	
Apodictic.	

Transcendental Table

of the Concepts of the Understanding.

1.	
---	---
<i>By Quantity</i>	
Unity (measure)	
Plurality (magnitude)	
Totality (the whole)	
2.	3.
<i>By Quality</i>	<i>By Relation</i>
Reality	Substance
Negation	Cause
Limitation	Community
4.	
<i>By Modality</i>	
Possibility	
Existence	
Necessity.	

Pure Physiological Table

of Universal Principles of Natural Science.

1.	
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	Axioms	
	of Intuition	
2.		3.
Anticipations		*Analogies*
of Perception		of Experience
	4.	
	Postulates	
	of Empirical Thinking	
	in General.	

Section 21a



§ 21. [a].

To gather everything said so far into a single concept, it is first necessary to remind readers that we are concerned here not with how experience comes into being, but with what lies within it. The former belongs to empirical psychology, and even there it could never be properly developed without the latter, which belongs to the critique of cognition and especially of the understanding.

Experience consists of intuitions, which belong to sensibility, and of judgments, which are solely the business of the understanding. Yet the judgments the understanding makes merely from sensible intuitions are still very far from being judgments of experience. For in the one case the judgment would connect perceptions only as they are given in sensible intuition; in the latter case, however, the judgments are to state what experience in general contains, and hence not what mere perception contains, whose validity is only subjective. Beyond sensible intuition and its logical connection in a judgment—after it has been made universal through comparison—the judgment of experience must therefore add something that determines the synthetic judgment as necessary, and thereby as universally valid. This can be nothing other than the concept that represents the intuition as determined in itself with respect to one form of judgment rather than another: that is, a concept of that synthetic unity of intuitions which can be represented only through a given logical function of judgments.

Section 22



§ 22.

The sum of the matter is this: the business of the senses is to intuit; that of the understanding, to think. Thinking, however, is uniting representations in one consciousness. This unification either arises merely in relation to the subject and is contingent and subjective, or takes place unconditionally and is necessary or objective. The unification of representations in one consciousness is judgment. Thus thinking is the same as judging, or referring representations to judgments in general. Judgments are therefore either merely subjective, when representations are referred solely to a consciousness in one subject and united in it, or objective, when they are united in a consciousness in general, that is, necessarily united in it. The logical moments of all judgments are so many possible ways of uniting representations in one consciousness. But when these very same moments serve as concepts, they are concepts of the *necessary* unification of representations in one consciousness, and hence principles of objectively valid judgments. This unification in one consciousness is either analytic, through identity, or synthetic, through the combination and addition of different representations to one another. Experience consists in the synthetic connection of appearances (perceptions) in one consciousness, insofar as this connection is necessary. Thus pure concepts of the understanding are those under

which all perceptions must first be subsumed before they can serve for judgments of experience, in which the synthetic unity of perceptions is represented as necessary and universally valid.^[305-1]

^[305-1]: But how does this proposition, that judgments of experience must contain necessity in the synthesis of perceptions, agree with the proposition I have repeatedly stressed above, that experience, as a posteriori cognition, can yield only contingent judgments? When I say that experience teaches me something, I always mean only the perception contained in it: for example, that whenever the sun shines on the stone, warmth follows. To that extent the experiential proposition is always contingent. That this warming follows necessarily from the sun's illumination is indeed contained in the judgment of experience, by virtue of the concept of cause; but I do not learn this through experience. On the contrary, experience is first generated by this addition of the understanding's concept (of cause) to perception. As to how perception comes to receive this addition, one must consult the Critique, in the section on the transcendental power of judgment, page 137 and following.

Section 23



§ 23.

Judgments, insofar as they are considered merely as the condition for uniting given representations in one consciousness, are rules. These rules, insofar as they represent the unification as necessary, are a priori rules; and insofar as no higher rules stand above them from which they are derived, they are principles. Now with respect to the possibility of all experience, if we consider in it merely the form of thinking, there are no conditions of judgments of experience beyond those that bring appearances, according to the different form of their intuition, under pure concepts of the understanding, which make the empirical judgment objectively valid. These, therefore, are the a priori principles of possible experience.

The principles of possible experience are at the same time universal laws of nature, which can be cognized a priori. Thus the problem contained in our present second question—*How is pure natural science possible?*—is solved. For the systematic character required for the form of a science is fully present here. Beyond the formal conditions of all judgments in general, and hence of all rules in general, which logic supplies, no others are possible. These conditions constitute a logical system; the concepts grounded on them, which contain the a priori conditions for all synthetic and necessary judgments, constitute, for that very reason, a transcendental system; and finally the principles through which all appearances are subsumed under these concepts constitute a physiological

system, that is, a system of nature. This precedes all empirical cognition of nature, first makes it possible, and can therefore be called universal and pure natural science in the proper sense.

Section 24



§ 24.

The first^[306-1] of those physiological principles subsumes all appearances, as intuitions in space and time, under the concept of *magnitude*, and is to that extent a principle for applying mathematics to experience. The second does not directly subsume the properly empirical element—namely sensation, which designates the real in intuitions—under the concept of *magnitude*. For sensation is no intuition that *contains* space or time, although it places its corresponding object in both. Yet in time there is a difference that has a magnitude between reality (the representation of sensation) and zero, that is, the complete emptiness of intuition. For between any given degree of light and darkness, between any degree of warmth and complete cold, any degree of weight and absolute lightness, any degree of the filling of space and entirely empty space, still smaller degrees can always be thought; just as, even between a consciousness and complete unconsciousness (psychological darkness), still smaller degrees always occur. Hence no perception is possible that would prove an absolute absence: for example, no psychological darkness that could not be regarded as a consciousness merely outweighed by another, stronger consciousness; and so it is in every case of sensation. The understanding can therefore anticipate even sensations, which constitute the proper quality of empirical

representations (appearances), by means of the principle that all of them, and hence the real in every appearance, have degrees. This is the second application of mathematics (*mathesis intensorum*) to natural science.

[³⁰⁶-1]: These three consecutive sections will scarcely be properly understood unless one has at hand what the Critique says about the principles. They may, however, serve to make their general character easier to survey and to draw attention to their main moments.

Section 25



§ 25.

As regards the relation of appearances, and solely with respect to their existence, the determination of this relation is not mathematical but dynamical. It can never be objectively valid, and hence fit to constitute experience, unless it stands under a priori principles that first make experiential cognition of appearances possible in this respect. Appearances must therefore be subsumed under the concept of substance, which underlies every determination of existence as a concept of the thing itself; or, second, insofar as a succession in time is found among appearances—that is, an event—under the concept of an effect in relation to a cause; or, insofar as coexistence is to be cognized objectively, that is, through a judgment of experience, under the concept of community (reciprocal interaction). Thus a priori principles underlie objectively valid, though empirical, judgments: that is, the possibility of experience insofar as it is to connect objects in nature with respect to their existence. These principles are the laws of nature in the proper sense, which may be called dynamical.

Finally, judgments of experience also involve cognition of agreement and connection: not so much that of appearances with one another in experience, as their relation to experience in general. This relation contains either their agreement with the formal conditions that the understanding cognizes, or their connection with the material element of the senses and of perception, or both united in one concept; hence it contains possibility, actuality, and necessity

according to universal laws of nature. This would constitute the physiological doctrine of method: the distinction between truth and hypotheses, and the limits of the reliability of the latter.

Section 26



§ 26.

The third table, that of principles, drawn by the critical method *from the nature of the understanding itself*, displays a perfection that raises it far above any other ever attempted, or that may yet be attempted, dogmatically *from the things themselves*, though always in vain. It contains all synthetic a priori principles in their completeness, and has been developed according to a single principle: the faculty of judging in general, which constitutes the essence of experience with respect to the understanding. We can therefore be certain that there are no further principles of this kind—a satisfaction the dogmatic method can never provide. Yet this is far from being its greatest merit.

We must attend to the ground of proof that reveals the possibility of this a priori cognition, and at the same time restricts all such principles to a condition that must never be overlooked, if it is not to be misunderstood and extended in use beyond the original meaning the understanding gives it: namely, that these principles contain only the conditions of possible experience in general, insofar as it is subject to a priori laws. Thus I do not say that things *in themselves* contain a magnitude, their reality a degree, their existence a connection of accidents in a substance, and so on. For no one can prove this, since such a synthetic connection from mere concepts, where all reference to sensible intuition on the one hand, and all connection of it in a possible experience on the other, are

lacking, is simply impossible. The essential restriction of the concepts in these principles is therefore this: that all things stand necessarily a priori under the stated conditions only *as objects of experience*.

From this, second, follows their specifically distinctive manner of proof: the principles in question are not referred directly to appearances and their relation, but to the possibility of experience, of which appearances constitute only the matter, not the form—that is, to objectively and universally valid synthetic propositions, in which precisely judgments of experience differ from mere judgments of perception. This is accomplished as follows. Appearances, as mere intuitions *that occupy a part of space and time*, stand under the concept of magnitude, which synthetically unites their manifold a priori according to rules. Insofar as perception contains sensation as well as intuition, and a transition through diminution always takes place between sensation and zero—that is, its complete disappearance—the real in appearances must have a degree. For sensation itself *occupies no part of space or time*,^[309-1] yet the transition to it from empty time or space is possible only in time. Consequently, although sensation as the quality of empirical intuition can never be cognized a priori with respect to that in which it differs specifically from other sensations, it can nevertheless, in a possible experience in general, be distinguished intensively, as a magnitude of perception, from every other sensation of the same kind. This first makes possible and determines the application of mathematics to nature with respect to the sensible intuition through which nature is given to us.

Above all, however, the reader must attend to the manner of proof of the principles that bear the name analogies of experience. Unlike the principles for applying mathematics to natural science in general, these concern not the generation of intuitions, but the connection of their existence in one experience. This can be nothing other than the determination of existence in time according to necessary laws, under which alone it is objectively valid, and hence experience. The proof therefore concerns not synthetic unity in the connection of things in themselves, but of *perceptions*, and these not with respect to their content, but with respect to their determination in time and the relation of existence in time according to universal laws. These universal laws thus contain the

necessity of determining existence in time in general—and consequently according to an a priori rule of the understanding—if the empirical determination in relative time is to be objectively valid, and hence experience. Here, in prolegomena, I can offer no more than this recommendation to the reader who has long been accustomed to regard experience as a merely empirical combination of perceptions, and therefore never considers that it goes much further than they reach: namely, that it gives empirical judgments universal validity, and for this requires a pure unity of the understanding that precedes them a priori. I recommend paying close attention to this distinction between experience and a mere aggregate of perceptions, and judging the manner of proof from this standpoint.

[³⁰⁹-1]: Heat, light, etc., are just as great in a small space, in degree, as in a large one; likewise inner representations, pain, and consciousness in general are no smaller in degree whether they last a short or a long time. Thus magnitude here is just as great at a point and in an instant as in any space or time, however large. Degrees, then, are greater not in intuition, but in mere sensation, or in the magnitude of the ground of an intuition. They can be estimated as magnitudes only through the relation of 1 to 0: that is, because each can diminish through infinitely many intermediate degrees until it disappears, or grow from zero through infinitely many moments of increase to a determinate sensation within a certain time (*quantitas qualitatis est gradus*).

Section 27



§ 27.

Here is the place to remove *Hume's* doubt from its very foundation. He rightly maintained that through reason we can in no way comprehend the possibility of causality: that is, the relation of the existence of one thing to the existence of something else necessarily posited by it. I add that we have just as little insight into the concept of subsistence: that is, into the necessity that the existence of things be grounded in a subject that cannot itself be a predicate of any other thing. Indeed, we cannot even form a concept of the possibility of such a thing, although we can point to examples of its use in experience. Likewise, this very same incomprehensibility concerns the community of things. For we cannot at all comprehend how, from the state of one thing, an inference can be drawn to the state of entirely different things outside it, and reciprocally; or how substances, each of which has its own separate existence, are to depend on one another, and necessarily so. Nevertheless, I am far from regarding these concepts as merely borrowed from experience, and the necessity represented in them as invented and as a mere illusion conjured up by long habit. Rather, I have sufficiently shown that these concepts, and the principles drawn from them, stand firm a priori before all experience and have their undoubted objective correctness—though, to be sure, only with respect to experience.

Section 28



§ 28.

Thus, although I have not the slightest concept of such a connection of things in themselves—how they can exist as substance, act as cause, or stand in community with others as parts of a real whole—and still less can I think such properties in appearances as appearances (since those concepts contain nothing that lies in appearances, but only what the understanding alone must think), we nevertheless have such a concept of a connection of representations in our understanding, specifically in judgments in general. Namely, in one kind of judgment representations stand as subject in relation to predicates; in another, as ground in relation to consequence; and in a third, as parts that together make up a whole possible cognition. Further, we cognize a priori that unless we regard the representation of an object as determined with respect to one or another of these moments, we can have no cognition at all that holds of the object. If we were occupied with the object in itself, however, not a single mark would be possible by which I could cognize that it was determined with respect to one or another of the moments just mentioned: that is, that it fell under the concept of substance, or of cause, or, in relation to other substances, under the concept of community. For I have no concept of the possibility of such a connection of existence. But the question is not how things in themselves are determined, but how experiential cognition of things is determined with respect to these moments of judgments in general: that is, how things as objects of experi-

ence can and must be subsumed under those concepts of the understanding. Here it is clear that I fully comprehend not only the possibility but also the necessity of subsuming all appearances under these concepts: that is, of using them as principles of the possibility of experience.

Section 29



§ 29.

To make a trial with *Hume's* problematic concept—his crux metaphysicorum (the metaphysicians' torment)—namely the concept of cause: first, through logic, the form of a conditional judgment in general is given to me a priori, namely the use of one given cognition as ground and another as consequence. Now it is possible to find in perception a rule of relation stating that one appearance constantly follows a certain other appearance, though not conversely. This is a case for employing the hypothetical judgment and saying, for example: if a body has been exposed to the sun long enough, it grows warm. Here, to be sure, there is as yet no necessity of connection, and hence no concept of cause. But I proceed and say: if the foregoing proposition, which is merely a subjective connection of perceptions, is to be a proposition of experience, it must be regarded as necessary and universally valid. Such a proposition would be: the sun, through its light, is the cause of the warmth. The foregoing empirical rule is now regarded as a law, and as holding not merely of appearances, but of them for the sake of a possible experience, which requires rules that hold throughout and therefore necessarily. Thus I can very well comprehend the concept of cause as a concept necessarily belonging to the mere form of experience, and its possibility as a synthetic unification of perceptions in a consciousness in general. But I cannot at all comprehend the possibility of a thing in general as a cause, precisely because the concept of cause indicates no

condition attaching to things, but only one attaching to experience: namely, that experience can be an objectively valid cognition of appearances and their succession in time only insofar as the preceding appearance can be connected with the following one according to the rule of hypothetical judgments.

Section 30



§ 30.

Hence the pure concepts of the understanding have no meaning whatsoever if they depart from objects of experience and seek to refer to things in themselves (noumena). They serve, as it were, only to spell out appearances so that we can read them as experience. The principles arising from their reference to the world of sense serve our understanding only for use in experience. Beyond that, they are arbitrary combinations without objective reality, whose possibility we cannot cognize a priori, and whose reference to objects we cannot confirm, or even make intelligible, through any example. For all examples can be borrowed only from some possible experience, and consequently the objects of those concepts can be found nowhere else than in a possible experience.

This complete solution of *Hume's* problem, though contrary to its author's expectation, thus preserves for the pure concepts of the understanding their a priori origin, and for the universal laws of nature their validity as laws of the understanding. Yet it does so by restricting their use to experience, because their possibility is grounded solely in the relation of the understanding to experience—not in such a way that they are derived from experience, but that experience is derived from them. This completely reversed kind of connection never occurred to *Hume*.

From this follows the result of all our investigations so far: “All synthetic a priori principles are nothing more than principles of possible experience,” and can never be referred to things in themselves, but only to appearances as objects of experience. Hence pure mathematics and pure natural science alike can never concern anything more than mere appearances, and represent only what either makes experience in general possible, or, being derived from these principles, must always be capable of being represented in some possible experience.

Section 31



§ 31.

Thus at last we have something definite to hold to in all metaphysical undertakings, which until now have swept boldly enough, but always blindly, over everything without distinction. It never occurred to dogmatic thinkers that the goal of their efforts should be set within such narrow bounds. Nor did it occur even to those who, defiantly trusting their supposed sound reason, used concepts and principles of pure reason that were indeed legitimate and natural, but intended merely for use in experience, to pursue insights for which they knew no definite limits, nor could know any, since they had never reflected, or been able to reflect, on the nature and even the possibility of such a pure understanding.

Many a naturalist of pure reason—by which I mean someone who trusts himself to decide questions of metaphysics without any science—might well claim that what has been presented here with so much preparation, or, if he prefers, with such long-winded pedantic pomp, was something he had long since not merely suspected, but known and understood through the prophetic spirit of his sound reason: “that with all our reason we can never pass beyond the field of experiences.” Yet if one gradually questions him about his principles of reason, he must admit that among them are many he has not drawn from experience, and that are therefore independent of it and valid a priori. How, then, and on what grounds will he keep within bounds the dogmatist, and

himself, who employs these concepts and principles beyond all possible experience precisely because they are cognized independently of it? Even he, this adept of sound reason, is not so secure, despite all his pretended wisdom so cheaply acquired, against slipping unnoticed beyond objects of experience into the realm of fantasies. Indeed, he is usually entangled deeply enough in it, though he gives his groundless claims a certain gloss through popular language, presenting everything as mere probability, reasonable conjecture, or analogy.

Section 32



§ 32.

Since the earliest days of philosophy, investigators of pure reason have thought, besides beings of sense or appearances (phaenomena), which make up the world of sense, of special beings of the understanding (noumena), which were supposed to make up a world of the understanding. And since they took appearance and illusion to be the same—a mistake readily pardonable in an age still undeveloped—they granted actuality to beings of the understanding alone.

In fact, if we rightly regard the objects of the senses as mere appearances, we thereby admit at the same time that a thing in itself underlies them, although we do not know it as it is in itself, but know only its appearance: that is, the way in which our senses are affected by this unknown something. Thus the understanding, precisely by admitting appearances, also admits the existence of things in themselves. To that extent we can say that the representation of such beings, which underlie appearances, and hence of mere beings of the understanding, is not only permissible but unavoidable.

Our critical deduction in no way excludes such things (noumena), but rather restricts the principles of the aesthetic so that they must not extend to all things—which would transform everything into mere appearance—but must hold only of objects of a possible experience. Beings of the understanding are thus admitted, but with emphasis on this rule, which allows no exception: that of these pure beings of the understanding we know, and can know, absolutely

nothing determinate. For our pure concepts of the understanding, as well as our pure intuitions, concern nothing but objects of possible experience, and hence mere beings of sense; and as soon as we depart from these, not the slightest meaning remains for those concepts.

Section 33



§ 33.

There is indeed something ensnaring about our pure concepts of the understanding in the way they entice us toward a transcendent use—for that is what I call a use that goes beyond all possible experience. Not only are our concepts of substance, force, action, reality, etc., wholly independent of experience, and likewise contain no appearance of the senses, so that they really seem to concern things in themselves (noumena); but, strengthening this supposition, they contain a necessity of determination that experience can never match. The concept of cause contains a rule according to which one state necessarily follows from another; but experience can show us only that one state of things is followed by another often, or at best usually, and thus can provide neither strict universality nor necessity, etc.

Concepts of the understanding therefore seem to have far more meaning and content than their mere use in experience could exhaust. And so, without noticing it, the understanding adds to the house of experience a much more extensive adjoining structure, which it fills with nothing but beings of thought, without even realizing that, with its otherwise correct concepts, it has ventured beyond the limits of their use.

Section 34



§ 34.

Two important, indeed wholly indispensable, though extremely dry investigations were therefore needed. These were undertaken in the Critique, pages 137 ff. and 235 ff. The first showed that the senses supply not the pure concepts of the understanding in concreto, but only the schema for their use, and that the object corresponding to it is found only in experience, as the product the understanding makes from materials of sensibility. The second investigation (Critique, p. 235) shows that despite the independence of our pure concepts and principles of the understanding from experience, and even their apparently wider range of use, nothing at all can be thought through them outside the field of experience. For they can do nothing but determine the logical form of judgment with respect to given intuitions. But since beyond the field of sensibility there is no intuition whatsoever, those pure concepts lack all meaning, because there is no means of presenting them in concreto. Consequently, all such noumena, together with their sum total, an intelligible^[316-1] world, are nothing but representations of a problem whose object may well be possible in itself, but whose solution is wholly impossible given the nature of our understanding. For our understanding is no faculty of intuition, but only of connecting given intuitions in one experience; experience must therefore contain all objects for our concepts, while outside it all concepts will be without meaning, since no intuition can be placed under them.

[³¹⁶-1]: Not, as is commonly said, an *intellectual* world. For *cognitions* through the understanding are *intellectual*, and these also concern our world of sense; but *objects* are called *intelligible* insofar as they can be represented *solely through the understanding* and none of our sensible intuitions can concern them. Yet since some possible intuition must correspond to every object, one would have to think of an understanding that immediately intuited things. But of such an understanding we have not the slightest concept, and hence none either of the *beings of the understanding* it is supposed to concern.

Section 35



§ 35.

The imagination may perhaps be forgiven if it sometimes indulges in fantasy, that is, fails to remain cautiously within the bounds of experience. For at least such a free flight enlivens and strengthens it, and it will always be easier to restrain its boldness than to remedy its languor. But that the understanding, which ought to *think*, should instead *fantasize*, can never be forgiven it; for it alone provides all the help we have in setting limits, where necessary, to the imagination's extravagance.

Yet it begins this business most innocently and modestly. First it puts in order the elementary cognitions it possesses before all experience, but which must nevertheless always find their application in experience. Gradually it drops these restrictions—and what should prevent it, since the understanding has taken its principles quite freely from itself? Now it turns first to newly invented forces in nature, soon afterward to beings outside nature: in a word, to a world for whose construction we cannot lack building materials, since fertile invention supplies them in abundance, and experience, though it does not confirm them, never refutes them either. This is also why young thinkers are so fond of metaphysics in the true dogmatic manner, and often sacrifice to it their time and their otherwise useful talent.

But it is of no use to try to moderate those fruitless attempts of pure reason through all manner of reminders about the difficulty of solving such deeply hidden questions, complaints about the limits of our reason, and reductions of assertions to mere conjectures. For unless their *impossibility* has been clearly demonstrated, and reason's *self-cognition* becomes a true science, in which the field of its rightful use is distinguished from that of its empty and fruitless use with, so to speak, geometrical certainty, those vain endeavors will never be entirely put to rest.

Section 36



§ 36.

How is nature itself possible?

This question, which is the highest point transcendental philosophy can ever touch, and to which it must also be led as its boundary and completion, actually contains two questions.

First: How is nature possible in the *material* sense, namely with respect to intuition, as the sum total of appearances? How are space, time, and what fills them both—the object of sensation—possible in general? The answer is: through the constitution of our sensibility, according to which it is affected, in its own distinctive way, by objects that are unknown to it in themselves and entirely distinct from those appearances. This answer was given in the book itself in the transcendental aesthetic, and here in the Prolegomena through the solution of the first main question.

Second: How is nature possible in the formal sense, as the sum total of the rules under which all appearances must stand if they are to be thought as connected in one experience? The answer can only be this: it is possible solely through the constitution of our understanding, according to which all those representations of sensibility are necessarily referred to one consciousness. Through this alone, our distinctive way of thinking—namely through rules—and by means of these, experience, which must be entirely distinguished from

insight into objects in themselves, become possible. This answer was given in the book itself in the transcendental logic, and here in the Prolegomena in the course of solving the second main question.

But how this distinctive property of our sensibility itself is possible, or that of our understanding and of the necessary apperception underlying it and all thinking, admits of no further solution or answer, because we always need them in turn for every answer and for all thinking about objects.

There are many laws of nature that we can know only through experience. But the lawfulness in the connection of appearances, that is, nature in general, can be learned from no experience, because experience itself requires such laws, which underlie its possibility *a priori*.

The possibility of experience in general is therefore at the same time the universal law of nature, and the principles of the former are themselves the laws of the latter. For we know nature only as the sum total of appearances, that is, of representations in us, and can therefore take the law of their connection from nowhere but the principles of their connection in us: that is, from the conditions of their necessary unification in one consciousness, which constitutes the possibility of experience.

Even the main proposition developed throughout this entire part—that universal laws of nature can be cognized *a priori*—already leads of itself to the proposition that nature’s supreme legislation must lie within ourselves, that is, in our understanding. We must seek its universal laws not from nature through experience, but conversely, nature in its universal lawfulness solely from the conditions of the possibility of experience lying in our sensibility and understanding. For how else would it be possible to know these laws *a priori*, since they are not rules of analytic cognition, but genuine synthetic extensions of it? Such an agreement, and a necessary one, between the principles of possible experience and the laws of the possibility of nature can arise from only two causes: either these laws are borrowed from nature through experience, or conversely, nature is derived from the laws of the possibility of experience in general, and is completely identical with the mere universal lawfulness of experience. The former contradicts itself, for universal laws of nature can and must be cog-

nized a priori—that is, independently of all experience—and laid at the foundation of every empirical use of the understanding. Thus only the second alternative remains.^[319-1]

But we must distinguish empirical laws of nature, which always presuppose particular perceptions, from pure or universal laws of nature, which, without any particular perceptions as their basis, contain merely the conditions for their necessary unification in one experience. With respect to the latter, nature and possible experience are entirely one and the same. And since in experience lawfulness rests on the necessary connection of appearances in one experience—without which we can cognize no object at all of the world of sense—and hence on the original laws of the understanding, it sounds strange at first, yet is nonetheless certain, when I say with respect to these universal laws: *the understanding does not draw its laws (a priori) from nature, but prescribes them to it.*

^[319-1]: *Crusius* alone knew a middle way: that a spirit who can neither err nor deceive originally implanted these laws of nature in us. Yet since deceptive principles also often intrude, of which this man's own system supplies not a few examples, and since there are no secure criteria for distinguishing the genuine origin from the spurious, the use of such a principle is a very precarious matter. For we can never know with certainty what the spirit of truth or the father of lies may have instilled in us.

Section 37



§ 37.

Let us illustrate this seemingly venturesome proposition through an example, which is to show that laws we discover in objects of sensible intuition, especially when they have been cognized as necessary, are already regarded by us as laws the understanding has placed there, although in all other respects they resemble the laws of nature that we attribute to experience.

Section 38



§ 38.

If we consider the properties of the circle, through which this figure at once unites so many arbitrary determinations of space within itself under a universal rule, we cannot help ascribing a nature to this geometrical thing. Thus two lines that intersect one another and also the circle, however randomly they may be drawn, always divide each other with such regularity that the rectangle formed from the segments of either line is equal to that formed from the segments of the other. Now I ask: “Does this law lie in the circle, or does it lie in the understanding?” That is, does this figure contain the ground of this law within itself independently of the understanding, or does the understanding, having constructed the figure itself according to its concepts—namely, the equality of the radii—at the same time place in it the law of chords intersecting one another in geometrical proportion? If we follow the proofs of this law, we soon discover that it can be derived solely from the condition the understanding laid at the foundation of the construction of this figure: namely, the equality of the radii. If we now extend this concept, pursuing still further the unity of the manifold properties of geometrical figures under common laws, and consider the circle as a conic section, which therefore stands with other conic sections under the very same fundamental conditions of construction, we find that all chords intersecting within the latter—the ellipse, parabola, and hyperbola—always do so in such a way that the rectangles formed from their parts,

though not equal, nevertheless always stand in equal ratios to one another. If we go still further, namely to the fundamental doctrines of physical astronomy, a physical law of reciprocal attraction appears, extending throughout all material nature. Its rule is that attraction decreases inversely as the square of the distance from each attracting point, just as the spherical surfaces over which this force spreads increase. This seems to lie necessarily in the nature of things themselves, and is therefore usually presented as cognizable a priori. Now simple as the sources of this law are, resting merely on the relation of spherical surfaces of different radii, its consequence is so excellent in the manifold harmony and regularity it produces that not only do all possible orbits of celestial bodies follow conic sections, but such a relation among them also results that no law of attraction other than that of the inverse square of the distances can be conceived as suitable for a world system.

Here, then, is nature resting on laws that the understanding cognizes a priori, chiefly from universal principles of the determination of space. Now I ask: do these laws of nature lie in space, and does the understanding learn them by merely seeking to explore the rich meaning lying within it? Or do they lie in the understanding and in the way it determines space according to the conditions of synthetic unity, toward which all its concepts converge? Space is something so uniform, and so undetermined with respect to all particular properties, that we shall certainly seek no treasure of natural laws within it. Rather, what determines space into the shape of a circle, or the figure of a cone and a sphere, is the understanding, insofar as it contains the ground of the unity of their construction. The mere universal form of intuition called space is indeed the substratum of all intuitions determinable with respect to particular objects, and in it certainly lies the condition of their possibility and manifoldness. But the unity of objects is determined solely by the understanding, and according to conditions that lie in its own nature. Thus the understanding is the source of the universal order of nature, by bringing all appearances under its own laws and thereby first producing experience, as to its form, a priori. By virtue of this, everything that is to be cognized only through experience is necessarily subjected to its laws. For we are not concerned with the nature of *things in themselves*, which is

independent of the conditions both of our sensibility and of our understanding, but with nature as an object of possible experience. Here the understanding, in making experience possible, at the same time brings it about that the world of sense is either no object of experience at all, or a nature.

Section 39



§ 39.

Appendix

to Pure Natural Science.

On the System of Categories.

Nothing can be more welcome to a philosopher than to be able to derive from a single a priori principle the manifold of concepts or principles that had previously appeared scattered through the use he had made of them in concreto, and in this way unite everything in a single cognition. Previously he merely believed that what remained to him after a certain abstraction, and seemed through mutual comparison to constitute a particular kind of cognition, had been collected in its entirety; but it was only an *aggregate*. Now he knows that precisely this much, neither more nor less, can constitute that kind of cognition, and sees the necessity of his division, which is comprehension; only now does he have a *system*.

To seek out from common cognition the concepts that have no particular experience at their foundation, yet occur in all experiential cognition, of which they constitute, as it were, the mere form of connection, required no greater reflection or insight than to seek out from a language the rules of the actual use of words in general, and so collect elements for a grammar. In fact, the two investigations are very closely related. Yet this does not enable us to give a rea-

son why each language has precisely this formal constitution and no other, still less why precisely this many formal determinations of it, neither more nor less, can be found in general.

Aristotle had collected ten such pure elementary concepts under the name of categories.^[323-1] To these, which were also called predicaments, he later found himself compelled to add five postpredicaments,^[323-2] some of which are already contained in the former (such as prius, simul, motus). But this rhapsody could count, and deserve approval, more as a hint for future investigators than as a systematically developed idea; hence, with the further enlightenment of philosophy, it was rejected as entirely useless.

In investigating the pure elements of human cognition—those containing nothing empirical—I succeeded, only after long reflection, in reliably distinguishing and separating the pure elementary concepts of sensibility (space and time) from those of the understanding. This excluded the 7th, 8th, and 9th categories from that list. The remainder could be of no use to me, because there was no principle by which the understanding could be fully measured and all its functions, from which its pure concepts arise, could be determined completely and precisely.

To discover such a principle, however, I looked for an act of the understanding that contains all the others and differs only through various modifications or moments in bringing the manifold of representation under the unity of thinking in general. I found that this act of the understanding consists in judging. Here the logicians' work lay ready before me, though not yet entirely free of defects, and enabled me to present a complete table of pure functions of the understanding, which were, however, undetermined with respect to any object. Finally I referred these functions of judging to objects in general, or rather to the condition for determining judgments as objectively valid, and pure concepts of the understanding arose. Of these I could be certain beyond doubt that precisely these concepts, and only this many, neither more nor less, can constitute our entire cognition of things from the understanding alone. I rightly called them by their old name, *categories*, reserving the task of adding in full, under the name of *predicables*, all concepts derivable from them: whether by

combination with one another, with the pure form of appearance (space and time), or with its matter insofar as this is not yet empirically determined (the object of sensation in general). This would be done as soon as a system of transcendental philosophy should be established, in preparation for which I was now concerned only with the critique of reason itself.

But what is essential in this system of categories, what distinguishes it from that old rhapsody, which proceeded without any principle, and why it alone deserves to be counted as philosophy, consists in this: by its means, the true meaning of the pure concepts of the understanding and the condition of their use could be precisely determined. For it became evident that in themselves they are nothing but logical functions, and as such do not constitute the slightest concept of an object in itself. Rather, they require sensible intuition as their foundation, and then serve only to determine empirical judgments with respect to the functions of judging—judgments otherwise undetermined and indifferent with respect to all these functions—thereby giving them universal validity and by their means making *judgments of experience* in general possible.

Neither their first author nor anyone after him ever conceived of such an insight into the nature of the categories, which at the same time restricted them to mere use in experience. But without this insight, which depends entirely upon their derivation or deduction, they are wholly useless: a wretched list of names without explanation or rule for their use. Had anything of the kind ever occurred to the ancients, the entire study of pure rational cognition, which under the name of metaphysics has ruined so many fine minds over many centuries, would doubtless have come down to us in quite a different form. It would have enlightened human understanding instead of exhausting it, as actually happened, in dark and fruitless brooding, and making it unfit for true science.

This system of categories in turn makes every treatment of any object of pure reason itself systematic, and supplies an indubitable direction or guiding thread as to how, and through which points of investigation, every metaphysical inquiry must be conducted if it is to be complete. For it exhausts all the moments of the understanding under which every other concept must be

brought. This is also how the table of principles arose, of whose completeness we can be certain only through the system of categories. Even in the division of concepts that are supposed to go beyond the physiological use of the understanding (Critique, p. 344, and likewise p. 415), it is always the same guiding thread. Since it must always be carried through the same fixed points, determined a priori in the human understanding, it always forms a closed circle, leaving no doubt that the object of a pure concept of the understanding or of reason, insofar as it is to be considered philosophically and according to a priori principles, can be completely cognized in this way. I could not even refrain from using this guidance with respect to one of the most abstract ontological divisions, namely the manifold distinction between the concepts of Something and Nothing, and from producing accordingly a systematic and necessary table (Critique, p. 292).^[325-1]

This same system, like every true system grounded on a universal principle, also displays its usefulness, which cannot be praised enough, in excluding all alien concepts that might otherwise slip in among those pure concepts of the understanding, and assigning every cognition its place. The concepts that I likewise arranged in a table, following the guiding thread of the categories, under the name of *concepts of reflection*, mingle in ontology, without permission or legitimate claim, among the pure concepts of the understanding. Yet the latter are concepts of connection, and thereby of the object itself, whereas the former are concepts only of the mere comparison of concepts already given, and hence have an entirely different nature and use. Through my division according to law (Critique, p. 260), they are separated from this mixture. But the advantage of that separate table of categories becomes still more striking when, as will happen immediately, we distinguish from it the table of transcendental concepts of reason, which are of an entirely different nature and origin from those concepts of the understanding, and must therefore also have a different form. Yet this indispensable separation has never been made in any system of metaphysics, where those ideas of reason consequently run indiscriminately together with

concepts of the understanding, as though they belonged like siblings to one family. In the absence of a distinct system of categories, this confusion could never have been avoided.

[³²³-1]: 1. Substantia. 2. Qualitas. 3. Quantitas. 4. Relatio. 5. Actio. 6. Passio. 7. Quando. 8. Ubi. 9. Situs. 10. Habitus.

[³²³-2]: Oppositum, Prius, Simul, Motus, Habere.

[³²⁵-1]: All manner of interesting observations can be made about a presented table of categories. For instance: 1) that the third arises from the first and second combined in one concept; 2) that in the categories of magnitude and quality there is merely a progression from unity to totality, or from Something to Nothing—for this purpose the categories of quality must stand in this order: reality, limitation, complete negation—without correlata or opposita, whereas those of relation and modality carry these latter with them; 3) that just as in *logic* categorical judgments underlie all the others, so the category of substance underlies all concepts of actual things; 4) that just as modality is no special predicate in a judgment, so the modal concepts add no determination to things; and so on. All such observations have their great usefulness. If, moreover, we enumerate all the *predicables*, which can be drawn fairly completely from any good ontology—for example, *Baumgarten's*—and arrange them by classes under the categories, taking care to add as complete an articulation of all these concepts as possible, a merely analytic part of metaphysics will arise. This will contain no synthetic proposition as yet and could precede the second, synthetic part; through its definiteness and completeness it would possess not only usefulness, but, by virtue of its systematic character, a certain beauty as well.

Third part: How is metaphysics in general possible?



The Main Transcendental Question

Third Part.

How Is Metaphysics in General Possible?

Section 40



§ 40.

For *their own security* and certainty, pure mathematics and pure natural science would have needed no such deduction as we have so far accomplished for both. The former rests on its own self-evidence; the latter, although it springs from pure sources of the understanding, nevertheless rests on experience and its thoroughgoing confirmation. It cannot entirely reject or dispense with the testimony of experience, because, for all its certainty, it can never, as philosophy, equal mathematics. Neither science, then, needed the investigation in question for itself, but for another science, namely metaphysics.

Besides concepts of nature, which always find their application in experience, metaphysics also deals with pure concepts of reason, which are never given in any experience whatever that could possibly occur. It therefore deals with concepts whose objective reality—that they are not mere fantasies—cannot be established by experience, and with assertions whose truth or falsity cannot be confirmed or exposed by any experience. Moreover, this part of metaphysics is precisely what constitutes its essential purpose, to which everything else is only a means; and so this science needs such a deduction *for its own sake*. The third question now before us thus concerns, as it were, the very heart and distinctive character of metaphysics: reason's occupation solely with itself and,

as it broods over its own concepts, the acquaintance with objects that supposedly arises directly from them, without needing experience to mediate it or indeed being able to reach it through experience.^[327-1]

Without a solution to this question, reason can never satisfy itself. The use within experience to which reason confines the pure understanding does not fulfill reason's own entire vocation. Each individual experience is only a part of the whole sphere of its domain; but the *absolute whole of all possible experience* is not itself an experience, and is nevertheless a necessary problem for reason. Merely to represent it, reason needs concepts quite different from those pure concepts of the understanding whose use is only immanent—that is, directed toward experience as far as it can be given. Concepts of reason, by contrast, aim at completeness, that is, the collective unity of the whole of possible experience, and thereby go beyond every given experience and become *transcendent*.

Just as the understanding needed the categories for experience, so reason contains within itself the ground of ideas, by which I mean necessary concepts whose object nevertheless *cannot* be given in any experience. These lie in the nature of reason just as the former lie in the nature of the understanding; and if they carry with them an illusion that can easily mislead, this illusion is unavoidable, although it is quite possible to prevent it “from deceiving us.”

Since all illusion consists in taking the subjective ground of a judgment to be objective, pure reason's self-knowledge in its transcendent (extravagant) use will be the sole safeguard against the errors into which reason falls when it misconstrues its vocation and refers, in a transcendent way, to the object in itself what concerns only its own subject and the guidance of that subject in every immanent use.

[³²⁷-1]: If we can say that a science actually exists at least in everyone's idea as soon as it is established that the problems leading to it are posed to everyone by the nature of human reason, and that many attempts at them, though mistaken, are therefore always unavoidable, then we must also say that metaphysics is *subjectively* (and indeed necessarily) actual; and so we rightly ask how it is (*objectively*) possible.

Section 41



§ 41.

Distinguishing *ideas*, that is, pure concepts of reason, from the categories, or pure concepts of the understanding, as cognitions of entirely different kinds, origins, and uses, is so important to laying the foundations of a science meant to contain the system of all these a priori cognitions that, without such a separation, metaphysics is simply impossible, or at most a disorderly, bungling attempt to patch together a house of cards without knowing the materials one is handling or their fitness for this or that purpose. Even if the Critique of Pure Reason had accomplished nothing but first bringing this distinction to light, it would already have contributed more to clarifying our concept and guiding inquiry in the field of metaphysics than all the fruitless efforts ever undertaken to satisfy the transcendent problems of pure reason. Those efforts never so much as suspected that they stood in an entirely different field from that of the understanding, and therefore named concepts of the understanding and concepts of reason in one breath, as though they were of the same kind.

Section 42



§ 42.

All pure cognitions of the understanding have this characteristic: their concepts can be given in experience, and their principles confirmed by experience. Transcendent cognitions of reason, by contrast, can neither be given in experience as regards their *ideas*, nor can their propositions ever be confirmed or refuted by experience. Any error that may creep into them can therefore be exposed by nothing but pure reason itself. This, however, is very difficult, because precisely this reason becomes naturally dialectical through its ideas, and this unavoidable illusion can be kept within bounds not by any objective and dogmatic investigations of things, but only by subjective investigations of reason itself as a source of ideas.

Section 43



§ 43.

Throughout the Critique, my chief concern has been not only to distinguish the kinds of cognition carefully, but also to derive all the concepts belonging to each from their common source. In this way, knowing where they originate would not only enable me to determine their use with certainty; I would also gain the previously unsuspected but inestimable advantage of knowing, a priori and thus from principles, that the enumeration, classification, and specification of these concepts were complete. Without this, everything in metaphysics is mere rhapsody: one never knows whether what one possesses is enough, or whether and where something may still be missing. Admittedly, this advantage is possible only in pure philosophy; but it also constitutes the very essence of that philosophy.

Since I had found the origin of the categories in the four logical functions of all judgments of the understanding, it was entirely natural to seek the origin of ideas in the three functions of syllogistic inferences. For once such pure concepts of reason (transcendental ideas) are given, then, unless one chooses to regard them as innate, they can surely be found nowhere but in that same act of reason which, insofar as it concerns form alone, constitutes the logical element in syllogistic inferences, but which, insofar as it represents judgments of the understanding as determined a priori with regard to one or another form, constitutes transcendental concepts of pure reason.

The formal difference between syllogistic inferences requires their division into categorical, hypothetical, and disjunctive. The concepts of reason founded on them therefore contain, first, the idea of the complete subject (the substantial); second, the idea of the complete series of conditions; and third, the determination of all concepts in the idea of a complete totality of the possible.^[330-1] The first idea was psychological, the second cosmological, the third theological; and since all three occasion a dialectic, though each in its own way, this grounded the division of the whole dialectic of pure reason into its paralogism, its antinomy, and finally its ideal. This derivation provides complete assurance that all the claims of pure reason are presented here in their entirety, and that not a single one can be missing, because reason itself, the faculty from which they all originate, is thereby measured out in full.

^[330-1]: In a disjunctive judgment we consider *all possibility* as divided in relation to a certain concept. The ontological principle of the thoroughgoing determination of a thing in general—of all possible opposed predicates, one belongs to every thing—which is also the principle of all disjunctive judgments, takes as its basis the totality of all possibility, within which the possibility of every thing in general is regarded as determinable. This serves to explain briefly the proposition above: that reason's act in disjunctive syllogisms is, in form, the same as the act by which it brings about the idea of a totality of all reality, containing within itself the positive element of all mutually opposed predicates.

Section 44



§ 44.

In considering this matter generally, it is also worth noting that ideas of reason do not, like the categories, offer us any aid in using the understanding with regard to experience. They are entirely dispensable for that purpose, and may even oppose and obstruct the maxims of rational cognition of nature; yet they are necessary in another respect, still to be determined. Whether or not the soul is a simple substance can be entirely indifferent to us in explaining its appearances. For no possible experience allows us to make the concept of a simple being sensible, and thus intelligible in concreto; so, with regard to any hoped-for insight into the cause of appearances, it is entirely empty and cannot serve as a principle for explaining what inner or outer experience provides. Nor can the cosmological ideas of the world's beginning or its eternity (*a parte ante*) help us explain any event in the world itself. Finally, a sound maxim of natural philosophy requires us to refrain from any explanation of nature's arrangement drawn from the will of a supreme being, because this is no longer natural philosophy, but an admission that we have reached the end of it. These ideas therefore have an entirely different intended use from those categories through which, together with the principles built on them, experience itself first became possible. Yet our laborious analytic of the understanding would also be entirely superfluous if our aim were nothing but the mere cognition of nature as it can be given in experience. For reason performs its business quite securely and well,

both in mathematics and in natural science, without all this subtle deduction. Our critique of the understanding thus joins with the ideas of pure reason in an aim that lies beyond the understanding's use in experience, although we have said above that, in this regard, such a use is entirely impossible and without object or meaning. Nevertheless, there must be agreement between what belongs to the nature of reason and what belongs to that of the understanding; and the former must contribute to the perfection of the latter and cannot possibly confuse it.

The solution to this question is as follows. In its ideas, pure reason does not aim at particular objects lying beyond the field of experience; it demands only completeness in the use of the understanding within the connected whole of experience. This completeness, however, can only be a completeness of principles, not of intuitions and objects. Yet to represent that completeness determinately, reason thinks of it as the cognition of an object whose cognition is completely determined with regard to those rules. This object, however, is only an idea, intended to bring cognition by the understanding as close as possible to the completeness that the idea designates.

Section 45



§ 45.

Preliminary Remark

on the Dialectic of Pure Reason.

We have shown above, in §§ 33 and 34, that the categories' purity from any admixture of sensible determinations can tempt reason to extend their use entirely beyond all experience, to things in themselves. Yet because the categories themselves find no intuition that could give them meaning and sense in concreto, they can, as merely logical functions, represent a thing in general, but cannot by themselves supply a determinate concept of any thing. Such extravagant objects are what are called *noumena*, or pure beings of the understanding (better: beings of thought): for example, *substance* thought *without permanence in time*, or a *cause* that acted *outside time*, and so on. We thus attribute predicates to them that serve only to make the lawfulness of experience possible, while removing from them all the conditions of intuition under which alone experience is possible; as a result, those concepts once again lose all meaning.

There is, however, no danger that the understanding, of its own accord and without being driven by laws foreign to it, will stray so wantonly beyond its bounds into the field of mere beings of thought. But when reason, which cannot be fully satisfied with any experiential use of the understanding's rules because that use is always still conditioned, demands the completion of this chain of conditions, the understanding is driven beyond its own sphere. It is

driven partly to represent objects of experience in a series so extended that no experience can encompass it, and partly even, in order to complete that series, to seek *noumena* entirely outside experience. To these reason may attach that chain and so at last become independent of the conditions of experience, while still making the chain's support complete. These, then, are the transcendental ideas. Although the true but hidden purpose of our reason's natural constitution may have designed them not for extravagant concepts, but solely for an unlimited extension of the use of experience, they nevertheless, through an unavoidable illusion, entice the understanding into a *transcendent* use. Deceptive though this use is, it can be restrained not by any resolve to stay within the bounds of experience, but only by scientific instruction, and with difficulty.

Section 46



§ 46.

I. *Psychological Ideas*. (Critique, p. 341 ff.)

It has long been observed that in all substances the actual subject—that which remains after all accidents, as predicates, have been separated off, and thus the *substantial* itself—is unknown to us; and there have been many complaints about these limits to our insight. But we should note here that the human understanding is not to be called to account for not knowing the substantial in things, that is, for being unable to determine it by itself, but rather for demanding to cognize it determinately, although it is a mere idea, as though it were a given object. Pure reason demands that for every predicate of a thing we seek the subject belonging to it; and for this subject, which in turn is necessarily only a predicate, we seek its subject, and so on to infinity, or as far as we can reach. But it follows that we must regard nothing we can reach as an ultimate subject, and that the substantial itself can never be thought by our understanding, however deeply it penetrates, even if all of nature were laid open to it. For the specific nature of our understanding consists in thinking everything discursively, that is, through concepts, and thus through nothing but predicates, for which the absolute subject must therefore always be lacking. Hence all the real properties through which we cognize bodies are merely accidents, even impenetrability, which we must always represent to ourselves only as the effect of a force for which we lack the subject.

Now it seems as though in our consciousness of ourselves (the thinking subject) we possess this substantial, and indeed in an immediate intuition. For all predicates of inner sense refer to the I as subject, and this can no longer be thought as the predicate of any other subject. Here, then, completeness in the reference of given concepts as predicates to a subject seems to be not merely an idea: the object, namely the *absolute subject* itself, seems to be given in experience. But this expectation is frustrated. For the I is not a concept at all,^[334-1] but only a designation of the object of inner sense insofar as we do not cognize it further through any predicate. Thus, although in itself it cannot be a predicate of another thing, neither can it be a determinate concept of an absolute subject; rather, as in all other cases, it can only be the reference of inner appearances to their unknown subject. Nevertheless, through a wholly natural misunderstanding, this idea—which serves very well, as a regulative principle, to destroy entirely all materialistic explanations of the inner appearances of our soul^[334-1]—gives rise to a highly plausible argument for inferring, from this supposed cognition of the substantial in our thinking being, its nature insofar as knowledge of that nature lies wholly beyond the compass of experience.

[³³⁴-1]: If the representation of apperception, the I, were a concept through which anything were thought, it could also be used as a predicate of other things, or contain such predicates within itself. But it is nothing more than the feeling of an existence without the slightest concept, and only the representation of that to which all thinking stands in relation (*relatione accidentis*).

Section 47



§ 47.

Now this thinking self (the soul), as the ultimate subject of thought, which cannot itself be represented in turn as the predicate of another thing, may indeed be called substance. Yet this concept remains entirely empty and without consequences unless permanence can be proved of it, as that which makes the concept of substances fruitful in experience.

But permanence can never be proved from the concept of a substance as a thing in itself, only for the sake of experience. This has been sufficiently demonstrated in the first analogy of experience (Critique, p. 182); and anyone unwilling to accept that proof need only try for themselves whether it is possible, from the concept of a subject that does not itself exist as the predicate of another thing, to prove that its existence is absolutely permanent, and that it can neither arise nor perish, either of itself or through any natural cause. Such synthetic a priori propositions can never be proved in themselves, but always only in relation to things as objects of a possible experience.

Section 48



§ 48.

If, then, we wish to infer the soul's permanence from its concept as substance, this can hold of it only for the sake of possible experience, not of it as a thing in itself and beyond all possible experience. Now the subjective condition of all our possible experience is life. We can therefore infer only the permanence of the soul during life; for a human being's death is the end of all experience as regards the soul as an object of experience, unless the contrary is demonstrated—and that is precisely what is in question. Thus the soul's permanence can be demonstrated only during a human being's life—a proof we may surely be excused from giving—but not after death, which is what actually concerns us. The general ground for this is that the concept of substance, insofar as it is to be regarded as necessarily connected with the concept of permanence, can be so connected only according to a principle of possible experience, and thus only for the sake of experience.^[335-1]

[³³⁵-1]: It is indeed very remarkable that metaphysicians have always slipped so heedlessly past the principle of the permanence of substances without ever attempting a proof of it; doubtless because, as soon as they began with the concept of substance, they found themselves wholly deserted by all grounds of proof. Common understanding, which was well aware that without this presupposition no unification of perceptions in one experience was possible, supplied the deficiency with a postulate. For it could never have drawn this princi-

ple from experience itself, partly because experience cannot follow materials (substances) through all their changes and dissolutions far enough to find the matter always undiminished, and partly because the principle contains *necessity*, which is always the mark of an a priori principle. They now confidently applied this principle to the concept of the soul as a *substance* and inferred its necessary continuance after a human being's death—especially since the simplicity of this substance, inferred from the indivisibility of consciousness, secured it against destruction through dissolution. Had they found the genuine source of this principle, which would have required far deeper investigations than they ever cared to begin, they would have seen that this law of the permanence of substances holds only for the sake of experience, and therefore can apply only to things insofar as they are to be cognized in experience and connected with others. It can never apply to them apart from all possible experience, and hence cannot apply to the soul after death.

Section 49



§ 49.

That something actual outside us not only corresponds, but must correspond, to our outer perceptions can likewise never be proved as a connection of things in themselves, though it can be proved for the sake of experience. This means that we can very well prove that something is outside us in an empirical manner, and thus as an appearance in space. For we are concerned with no objects other than those belonging to a possible experience, precisely because other objects cannot be given to us in any experience and are therefore nothing for us. What is intuited in space is empirically outside me. And since space, together with all the appearances it contains, belongs to representations whose connection according to laws of experience proves their objective truth just as the connection of the appearances of inner sense proves the actuality of my soul as an object of inner sense, I am, through outer experience, just as conscious of the actuality of bodies as outer appearances in space as I am, through inner experience, of the existence of my soul in time. I can cognize this soul, too, only as an object of inner sense through appearances that constitute an inner state, while its essence in itself, underlying these appearances, remains unknown to me. *Cartesian* idealism thus distinguishes only outer experience from dreaming, and lawfulness, as a criterion of the truth of the former, from the disorder and deceptive illusion of the latter. In both, it presupposes space and time as conditions of the existence of objects, and asks only whether the objects of the

outer senses are actually to be found in the space in which we place them while awake, just as the object of inner sense, the soul, is actually in time; that is, whether experience carries with it reliable criteria for distinguishing it from imagination. Here the doubt is easily removed, and in ordinary life we always remove it by examining the connection of appearances in both according to universal laws of experience. If the representation of outer things agrees throughout with these laws, we cannot doubt that they constitute genuine experience. Material idealism can thus very easily be removed when appearances, as appearances, are considered only according to their connection in experience; and it is just as certain an experience that bodies exist outside us (in space) as that I myself exist according to the representation of inner sense (in time). For the concept *outside us* means only existence in space. But since the I in the proposition *I am* means not merely the object of inner intuition (in time), but the subject of consciousness, just as body means not merely outer intuition (in space), but also the thing *in itself* that underlies this appearance, the question whether bodies, as appearances of outer sense, exist as bodies *outside my thoughts* can be denied without any hesitation in the study of nature. Yet the matter is no different with the question whether I myself, *as an appearance of inner sense*—the soul according to empirical psychology—exist in time outside my power of representation; for this must likewise be denied. In this way everything, once brought to its true meaning, is settled and certain. Formal idealism, which I have elsewhere called transcendental idealism, actually abolishes material or *Cartesian* idealism. For if space is nothing but a form of my sensibility, then as a representation it is just as actual in me as I myself am, and only the empirical truth of the appearances in it remains at issue. But if that is not so, and space and the appearances in it are something existing outside us, then all the criteria of experience can never prove the actuality of these objects outside us, apart from our perception.

Section 50



§ 50.

II. *Cosmological Ideas*. (Critique, p. 405 ff.)

This product of pure reason in its transcendent use is its most remarkable phenomenon, and of all phenomena it is the most powerful in awakening philosophy from its dogmatic slumber and moving it to the difficult business of critiquing reason itself.

I call this idea cosmological because it always takes its object only from the world of sense, and needs no idea other than one whose object belongs to the senses. To that extent it is at home, not transcendent, and thus is not yet an idea. By contrast, to think of the soul as a simple substance already means thinking of an object—the simple—the like of which cannot be represented to the senses at all. Nevertheless, the cosmological idea extends the connection of the conditioned with its condition, whether mathematical or dynamical, so far that experience can never equal it; and in this respect it is always an idea whose object can never be adequately given in any experience.

Section 51



§ 51.

Here, first of all, the usefulness of a system of categories appears so clearly and unmistakably that, even if there were no further proofs of it, this alone would sufficiently demonstrate their indispensability in the system of pure reason. There are no more than four such transcendent ideas, as many as there are classes of categories; but in each class they aim only at the absolute completeness of the series of conditions for a given conditioned thing. In accordance with these cosmological ideas, there are also only four kinds of dialectical assertions of pure reason. Since they are dialectical, they themselves prove that each is opposed by an assertion contradicting it on equally plausible principles of pure reason. No metaphysical art of the subtlest distinction can prevent this conflict; rather, it forces the philosopher to return to the first sources of pure reason itself.

This antinomy, which is not arbitrarily invented but grounded in the nature of human reason, and is therefore unavoidable and never-ending, contains the following four theses together with their antitheses.

| | Thesis | Antithesis |

|---|---|---|

- | 1. | The world has a *beginning* (boundary) in time and space | The world is
infinite in time and space |
- | 2. | Everything in the world consists of the *simple* | Nothing is simple;
everything is *composite* |
- | 3. | There are causes in the world through *freedom* | There is no freedom;
everything is *nature* |
- | 4. | In the series of causes in the world there is some *necessary* being | Nothing
in it is necessary; in this series *everything is contingent.* |

Section 52



§ 52.

Here, then, is the strangest phenomenon of human reason, of which no example can be shown in any other use of it. If, as usually happens, we think of the appearances of the world of sense as things in themselves; if we assume the principles of their connection to be principles holding universally of things in themselves, and not merely of experience—as is equally usual and indeed unavoidable without our critique—then an unsuspected conflict emerges that can never be settled by the ordinary dogmatic path. For both thesis and antithesis can be demonstrated by equally evident, clear, and irresistible proofs—I vouch for the correctness of all these proofs—and reason thus finds itself divided against itself: a state in which the skeptic exults, but which must trouble the critical philosopher and set him thinking.

Section 52b



§ 52b.

One can bungle metaphysics in all sorts of ways without having much to fear from being caught in a falsehood. For so long as we do not contradict ourselves—which is quite possible in synthetic propositions even when they are entirely invented—we can never be refuted by experience in any case where the concepts we connect are mere ideas that cannot, in their full content, be given in experience at all. For how could we decide through experience whether the world has existed from eternity or had a beginning; whether matter is divisible to infinity or consists of simple parts? Such concepts cannot be given in any experience, even the greatest possible; hence this touchstone cannot reveal the incorrectness of either the affirmative or the negative proposition.

The only possible case in which reason would reveal against its will its secret dialectic, which it falsely passes off as dogmatics, would be if it grounded an assertion on a universally accepted principle and, from another equally accredited principle, inferred precisely the opposite with the utmost correctness of inference. This case is now actual here, and indeed in regard to four natural ideas of reason, from which four assertions on one side and as many counterassertions on the other arise, each as a correct consequence of universally accepted principles. They thereby reveal the dialectical illusion of pure reason in the use of these principles, which would otherwise have to remain hidden forever.

Here, then, is a decisive test that must necessarily disclose an error hidden in reason's presuppositions.^[341-1] Of two mutually contradictory propositions, both cannot be false unless the concept underlying both is itself contradictory. For example, the two propositions "a square circle is round" and "a square circle is not round" are both false. As regards the first, it is false that the circle in question is round, because it is square; but it is also false that it is not round, that is, angular, because it is a circle. For the logical mark of a concept's impossibility consists precisely in this: on the presupposition of that concept, two contradictory propositions would be false at once. Thus, since no third possibility can be thought between them, nothing at all is thought through that concept.

^[341-1]: I therefore wish the critical reader to concern themselves chiefly with this antinomy, because nature itself seems to have set it up to make reason pause in its bold pretensions and compel it to examine itself. I undertake to answer for every proof I have given, both of the thesis and of the antithesis, and thereby to demonstrate the certainty of reason's unavoidable antinomy. If this strange phenomenon now leads the reader back to examine the presupposition underlying it, they will feel compelled to join me in investigating more deeply the first foundation of all cognition of pure reason.

Section 52c



§ 52c.

Now just such a contradictory concept underlies the first two antinomies, which I call mathematical because they deal with adding or dividing the homogeneous; and from this I explain how it happens that both thesis and antithesis are false in each.

When I speak of objects in time and space, I am not speaking of things in themselves, because I know nothing of them, but only of things in appearance—that is, of experience as a particular kind of cognition of objects, the only kind granted to human beings. Of what I think in space or in time, I must not say that in itself, even without this thought of mine, it is in space and time. For then I would contradict myself, because space and time, together with the appearances in them, are not something existing in itself and outside my representations, but are themselves only modes of representation; and it is plainly contradictory to say that a mere mode of representation also exists outside our representation. Objects of the senses thus exist only in experience; to give them, by contrast, an existence of their own, subsisting by itself even without experience or before it, means as much as to represent experience as actual even without or before experience.

If I now ask about the magnitude of the world in space and time, it is, for all my concepts, just as impossible to say that it is infinite as that it is finite. For neither can be contained in experience, because no experience is possible either

of an *infinite* space or of an infinitely elapsed time, or of the world's *limitation* by an empty space or by a preceding empty time. These are only ideas. Thus this magnitude of the world, determined in one way or the other, would have to lie in the world itself, apart from all experience. But this contradicts the concept of a world of sense, which is only a totality of appearance, whose existence and connection occur only in representation, namely experience, because it is not a thing in itself but itself nothing but a mode of representation. It follows that, since the concept of a world of sense existing by itself is self-contradictory, any solution to the problem of its magnitude will always be false, whether attempted affirmatively or negatively.

The very same holds of the second antinomy, which concerns the division of appearances. For these are mere representations, and the parts exist only in the representation of them, hence in the division—that is, in a possible experience in which they are given—and the division therefore goes only as far as this experience reaches. To assume that an appearance, for example that of a body, contains in itself, before all experience, all the parts that any possible experience can ever reach, means giving a mere appearance, which can exist only in experience, an existence of its own that precedes experience; or saying that mere representations exist before they are encountered in the power of representation. This is self-contradictory, and so too is every solution of the misunderstood problem, whether one asserts that bodies in themselves consist of infinitely many parts or of a finite number of simple parts.

Section 53



§ 53.

In the first class of antinomy, the mathematical, the falsity of the presupposition consisted in representing what is contradictory—namely appearance as a thing in itself—as compatible within one concept. In the second, or dynamical, class of antinomy, however, the falsity of the presupposition consists in representing what is compatible as contradictory. Consequently, whereas in the first case both opposed assertions were false, here, by contrast, assertions opposed to each other through mere misunderstanding can both be true.

Mathematical connection necessarily presupposes homogeneity in what is connected, in the concept of magnitude; dynamical connection by no means requires this. When the magnitude of something extended is at issue, all its parts must be homogeneous with one another and with the whole. In the connection of cause and effect, by contrast, homogeneity may indeed also be found, but it is not necessary; for the concept of causality, through which something entirely different is posited by something, at least does not require it.

If the objects of the world of sense were taken for things in themselves, and the laws of nature cited above for laws of things in themselves, the contradiction would be unavoidable. Likewise, if the subject of freedom were represented, like the other objects, as mere appearance, the contradiction could no more be avoided; for the very same thing would be both affirmed and denied of one and the same object in the same sense. But if natural necessity is referred solely

to appearances, and freedom solely to things in themselves, no contradiction arises even if both kinds of causality are assumed or admitted, however difficult or impossible it might be to make the latter kind comprehensible.

In appearance, every effect is an event, or something that happens in time. According to the universal law of nature, a determination of the causality of its cause—a state of that cause—must precede it, upon which it follows according to a constant law. But this determination of the cause to causality must also be something that occurs or *happens*: the cause must have *begun to act*, for otherwise no succession in time could be thought between it and the effect. The effect would always have existed, just like the causality of the cause. Thus, among appearances, the *determination* of the cause *to act* must also have arisen, and must therefore, just like its effect, be an event that must in turn have its cause, and so on. Natural necessity must consequently be the condition according to which efficient causes are determined. If, on the other hand, freedom is to be a property of certain causes of appearances, then in relation to these appearances as events it must be a capacity to begin them *of itself* (*sponte*), that is, without the causality of the cause itself having to begin, and hence without its needing any other ground to determine its beginning. But in that case the *cause*, with regard to its causality, would have to stand outside temporal determinations of its state; that is, it could not be an *appearance* at all. It would have to be assumed as a thing in itself, and only its *effects* as *appearances*.^[344-1] If such an influence of beings of the understanding on appearances can be thought without contradiction, then natural necessity will indeed attach to every connection of cause and effect in the world of sense. Yet freedom can be conceded to the cause that is itself no appearance, although it underlies appearance; thus nature and freedom can be attributed without contradiction to the very same thing, but in different relations: in the one case as appearance, in the other as a thing in itself.

We possess within us a faculty that is connected not only with its subjectively determining grounds, which are the natural causes of its actions, and in this respect is the faculty of a being that itself belongs among appearances. It is also referred to objective grounds that are mere ideas, insofar as they can deter-

mine this faculty—a connection expressed by *ought*. This faculty is called *reason*; and insofar as we consider a being, a human being, solely according to this objectively determinable reason, it cannot be regarded as a sensible being. Rather, the property in question is the property of a thing in itself. We cannot at all comprehend its possibility: how, namely, the *ought*, which has never yet happened, could determine its activity and be the cause of actions whose effect is appearance in the world of sense. Nevertheless, the causality of reason with regard to effects in the world of sense would be freedom, insofar as *objective grounds*, which are themselves ideas, are regarded as determining it. For its action would then depend on no subjective conditions, hence on no temporal conditions either, and thus not on the law of nature that serves to determine these. For grounds of reason give actions their rule universally, from principles, without the influence of circumstances of time or place.

What I offer here serves only as an example to aid understanding, and does not necessarily belong to our question, which must be decided from mere concepts, independently of properties we encounter in the actual world.

Now I can say without contradiction: all actions of rational beings, insofar as they are appearances, encountered in any experience, stand under natural necessity; yet these very same actions, considered solely in relation to the rational subject and its capacity to act from reason alone, are free. For what is required for natural necessity? Nothing more than the determinability of every event in the world of sense according to constant laws, hence a relation to a cause in appearance, while the underlying thing in itself and its causality remain unknown. But I say: the *law of nature remains*, whether the rational being is the cause of effects in the world of sense from reason, hence through freedom, or whether it does not determine these effects from rational grounds. In the first case, the action occurs according to maxims whose effect in appearance will always accord with constant laws; in the second, where the action does not occur according to principles of reason, it is subject to the empirical laws of sensibility. In both cases the effects are connected according to constant laws; but we demand nothing more for natural necessity, and indeed know nothing more about it. In the first case, however, reason is the cause of these laws of nature

and is therefore free; in the second, the effects proceed according to mere natural laws of sensibility, because reason exercises no influence on them. But reason is not itself thereby determined by sensibility—which is impossible—and is therefore free in this case as well. Freedom thus does not hinder the natural law of appearances, any more than this law impairs the freedom of reason's practical use, which stands in connection with things in themselves as determining grounds.

In this way practical freedom—namely the freedom in which reason has causality according to objectively determining grounds—is preserved without the slightest detriment to natural necessity with regard to these very same effects as appearances. This can also serve to explain what we had to say about transcendental freedom and its compatibility with natural necessity, taken in the same subject but not in one and the same relation. For as regards this freedom, every beginning of a being's action from objective causes is always a first beginning relative to these determining grounds, although the very same action in the series of appearances is only a *subordinate beginning*, which must be preceded by a state of the cause that determines it and is itself likewise determined by a still earlier state. Thus we can think, without contradicting laws of nature, of a capacity in rational beings—or in beings generally insofar as their causality is determined in them as things in themselves—to begin a series of states spontaneously. For the relation of the action to objective grounds of reason is not a temporal relation: here what determines causality does not precede the action in time, because such determining grounds represent not a relation of objects to the senses, hence not to causes in appearance, but determining causes as things in themselves, which do not stand under temporal conditions. Thus the action can be regarded as a first beginning with respect to the causality of reason, yet at the same time as a merely subordinate beginning with respect to the series of appearances; and without contradiction it can be regarded in the former respect as free, and in the latter, where it is mere appearance, as subject to natural necessity.

As for the *fourth* antinomy, it is removed in a way similar to the conflict of reason with itself in the third. For if only the *cause in appearance* is distinguished from the *cause of appearances*, insofar as this can be thought as a *thing in itself*, both propositions can very well stand together: that nowhere in the world of sense is there a cause, according to similar laws of causality, whose existence is absolutely necessary; and, on the other hand, that this world is nevertheless connected with a necessary being as its cause, but of another kind and according to another law. The incompatibility of these two propositions rests solely on the misunderstanding of extending to things in themselves what holds only of appearances, and of generally confusing both in one concept.

[³⁴⁴-1]: The idea of freedom applies solely in the relation of the *intellectual* as cause to *appearance* as effect. Hence we cannot attribute freedom to matter with regard to its ceaseless action by which it fills its space, even though this action occurs from an inner principle. Nor can we find an appropriate concept of freedom for pure beings of the understanding, for example God, insofar as his action is immanent. For his action, although independent of external determining causes, is nevertheless determined in his eternal reason, hence in the divine *nature*. Only when *something is to begin* through an action, and the effect is therefore to be found in the temporal series, hence in the world of sense—for example, the beginning of the world—does the question arise whether the causality of the cause must itself also begin, or whether the cause can initiate an effect without its causality itself beginning. In the first case, the concept of this causality is a concept of natural necessity; in the second, of freedom. From this the reader will see that, in explaining freedom as the capacity to begin an event of itself, I hit precisely upon the concept that is the problem of metaphysics.

Section 54



§ 54.

This, then, is the exposition and resolution of the entire antinomy in which reason finds itself entangled when applying its principles to the world of sense. The former—the mere exposition—would even by itself be a considerable contribution to knowledge of human reason, although this resolution of the conflict may not yet have fully satisfied the reader, who here has to combat a natural illusion only recently presented as such, after always having taken it for truth. For one consequence of this is nevertheless inevitable. Since it is entirely impossible to escape this conflict of reason with itself so long as one takes the objects of the world of sense for things in themselves, and not for what they actually are, namely mere appearances, the reader will be compelled to undertake once again the deduction of all our a priori cognition, and the examination of the deduction I have given, in order to reach a decision about it. I ask no more for now. For once the reader, in this occupation, has first thought deeply enough into the nature of pure reason, the concepts through which alone the resolution of reason's conflict is possible will already be familiar; without this, I cannot expect full assent even from the most attentive reader.

Section 55



§ 55.

III. *Theological Idea*. (Critique, p. 571 ff.)

The third transcendental idea, which supplies material for the most important use of reason—a use that, if pursued merely speculatively, is extravagant (transcendent), and for that very reason dialectical—is the ideal of pure reason. Here reason does not, as with the psychological and cosmological ideas, begin from experience and find itself tempted, by ascending through grounds, to strive if possible for the absolute completeness of their series. Instead, it breaks off entirely and descends from mere concepts of what would constitute the absolute completeness of a thing in general—hence by means of the idea of a supremely perfect original being—to determine the possibility, and thus also the actuality, of all other things. Here, therefore, the mere presupposition of a being that is thought, though not in the series of experience, nevertheless for the sake of experience, to make its connection, order, and unity comprehensible—that is, the idea—is easier to distinguish from a concept of the understanding than in the previous cases. Hence the dialectical illusion could easily be brought to light here: it arises from our taking the subjective conditions of our thinking for objective conditions of things themselves, and a hypothesis necessary to satisfy our reason for a dogma. I therefore have nothing further to observe about the pretensions of transcendental theology, since what the Critique says on this subject is intelligible, evident, and decisive.

Section 56



§ 56.

General Remark on the Transcendental Ideas.

The objects given to us through experience are incomprehensible to us in many respects. Many questions to which the law of nature leads us cannot be solved at all when pursued to a certain height, though always in accordance with these laws—for example, why materials attract one another. But when we leave nature entirely, or in pursuing its connections exceed all possible experience, and thus immerse ourselves in mere ideas, we cannot then say that the object is incomprehensible to us, and that the nature of things poses insoluble problems for us. For then we are not dealing with nature or with given objects at all, but solely with concepts originating only in our reason, and with mere beings of thought. As regards these, all problems arising from their concept must be capable of solution, because reason certainly can and must give a complete account of its own procedure.^[349-1] Since the psychological, cosmological, and theological ideas are nothing but pure concepts of reason that cannot be given in any experience, the questions reason poses about them are set for us not by the objects, but by mere maxims of reason for the sake of its own satisfaction; and they must all be capable of a sufficient answer. This is indeed achieved by showing that they are principles for bringing our use of the understanding to thoroughgoing harmony, completeness, and synthetic unity, and that to this extent they hold only of experience, but of experience as a *whole*.

Although an absolute whole of experience is impossible, the idea of a whole of cognition according to principles in general is nevertheless what alone can give cognition a particular kind of unity, namely that of a system. Without this, our cognition is nothing but fragments and cannot be used for the highest purpose, which is always only the system of all purposes. Here, however, I mean not merely the practical purpose, but also the highest purpose of the speculative use of reason.

The transcendental ideas thus express reason's distinctive vocation, namely as a principle of the systematic unity of the use of the understanding. But if we regard this unity of the mode of cognition as though it attached to the object of cognition; if we take what is properly only *regulative* to be *constitutive*, and persuade ourselves that by means of these ideas we can extend our knowledge far beyond all possible experience, hence in a transcendent manner, although that unity serves only to bring experience within itself as close as possible to completeness—that is, to restrict its progress by nothing that cannot belong to experience—then this is a mere misunderstanding in judging the proper vocation of our reason and its principles. It is a dialectic that partly confuses reason's use in experience and partly divides reason against itself.

Conclusion: Determining the Boundaries of Pure Reason.

[³⁴⁹-1]: Thus Mr. *Platner* says acutely in his *Aphorisms*, §§ 728, 729: "If reason is a criterion, then no concept can be possible that is incomprehensible to human reason.—Only in the actual is there incomprehensibility. Here incomprehensibility arises from the inadequacy of the ideas acquired."—It therefore only sounds paradoxical, and is otherwise not surprising, to say that much in nature is incomprehensible to us—for example, the power of generation—but that if we ascend still higher and even go beyond nature, everything becomes comprehensible to us again. For then we entirely leave behind the *objects* that can be given to us, and concern ourselves solely with ideas. With these we can very well comprehend the law that reason, through them, prescribes to the understanding for its use in experience, because this law is reason's own product.

Section 57



§ 57.

After the clearest proofs we have given above, it would be absurd to hope to cognize more of any object than belongs to possible experience of it, or to claim even the slightest cognition of anything we assume not to be an object of possible experience, in order to determine it according to its constitution as it is in itself. For by what means would we make this determination? Time, space, and all concepts of the understanding—and still more the concepts drawn from empirical intuition or *perception* in the world of sense—have, and can have, no use other than to make experience possible. If we remove this condition even from the pure concepts of the understanding, they then determine no object at all and have no meaning whatever.

On the other hand, it would be a still greater absurdity to admit no things in themselves at all, or to pass off our experience as the only possible way of cognizing things, hence our intuition in space and time as the only possible intuition, and our discursive understanding as the archetype of every possible understanding; thus to demand that principles of the possibility of experience be taken as universal conditions of things in themselves.

Our principles, which restrict the use of reason solely to possible experience, could therefore themselves become *transcendent*, and pass off the limits of our reason as limits of the possibility of things themselves—as *Hume's* Dialogues can serve to illustrate—unless a careful critique guarded the bound-

aries of our reason even with regard to its empirical use and set a limit to its pretensions. Skepticism originally sprang from metaphysics and its unpoliced dialectic. At first it may well have declared everything that exceeds reason's use in experience null and deceptive merely for the benefit of that use. But gradually, when it became apparent that the very same a priori principles employed in experience led imperceptibly, and seemingly with the very same right, still further than experience reaches, people began to cast doubt even on principles of experience. There is, to be sure, no danger in this, for sound understanding will surely always maintain its rights here. Yet a peculiar confusion arose in science, which cannot determine how far reason is to be trusted, and why only that far and no further. This confusion can be remedied, and any future relapse prevented, only by a formal determination, drawn from principles, of the boundaries of our use of reason.

It is true: beyond all possible experience, we can give no determinate concept of what things in themselves may be. Yet we are not free to refrain entirely from asking about them. For experience never fully satisfies reason; in answering questions, it always refers us further back and leaves us dissatisfied with regard to their complete elucidation, as anyone can sufficiently see from the dialectic of pure reason, which has its sound subjective ground for precisely this reason. Who can bear our arriving, as regards the nature of our soul, at a clear consciousness of the subject and at the same time the conviction that its appearances cannot be explained *materialistically*, without asking what the soul actually is, and, if no concept of experience suffices for this, at least assuming a concept of reason—that of a simple immaterial being—solely for this purpose, although we cannot demonstrate its objective reality at all? Who can be satisfied with mere experiential cognition in all cosmological questions about the world's duration and magnitude, about freedom or natural necessity, when, however we proceed, every answer given according to principles of experience always gives birth to a new question that equally demands an answer, and thereby clearly demonstrates the inadequacy of all physical modes of explanation to satisfy reason? Finally, who does not see, in the thoroughgoing contingency and dependence of everything they can think and assume merely accord-

ing to principles of experience, the impossibility of stopping there? And who does not feel compelled, despite every prohibition against losing themselves in transcendent ideas, to seek rest and satisfaction beyond all concepts they can justify through experience in the concept of a being whose idea cannot indeed be understood in itself as regards its possibility, though neither can it be refuted, because it concerns a mere being of the understanding—yet without which reason would have to remain forever unsatisfied?

Boundaries, in extended beings, always presuppose a space found outside a certain determinate place and enclosing it; limits require no such thing, but are mere negations affecting a magnitude insofar as it lacks absolute completeness. Our reason, however, sees around itself, as it were, a space for the cognition of things in themselves, although it can never have determinate concepts of them and is restricted solely to appearances.

So long as reason's cognition is homogeneous, no determinate boundaries of it can be thought. In mathematics and natural science human reason does indeed recognize limits, but no boundaries: it recognizes that something lies outside it, where it can never reach, but not that it will itself ever reach completion anywhere in its internal progress. The expansion of mathematical insight and the possibility of ever new discoveries extend to infinity; so too does the discovery, through continuing experience, of new properties of nature, new forces and laws, and their unification through reason. Yet limits here are nonetheless unmistakable. For mathematics concerns only *appearances*, and whatever cannot be an object of sensible intuition, such as the concepts of metaphysics and morals, lies entirely outside its sphere, and it can never lead there; nor does it need these concepts at all. There is therefore no continuous progress and approach toward these sciences, and, as it were, no point or line of contact. Natural science will never disclose to us the interior of things, that is, what is not appearance but can nevertheless serve as the supreme ground for explaining appearances; but neither does it need this for its physical explanations. Indeed, even if something of this sort were offered to it from elsewhere—for example, the influence of immaterial beings—it should reject it and not introduce it at all

into the progress of its explanations. Instead, it should always ground these only on what, as an object of the senses, can belong to experience and be connected with our actual perceptions according to laws of experience.

Metaphysics, however, leads us to boundaries in the dialectical attempts of pure reason—attempts not begun arbitrarily or wantonly, but driven by the very nature of reason. And the transcendental ideas, precisely because we cannot avoid them yet they can never be realized, serve not only to show us the boundaries of the use of pure reason, but also the way to determine them. This, too, is the purpose and benefit of this natural predisposition of our reason, which has brought forth metaphysics as its favorite child. Its generation, like any other in the world, must be ascribed not to chance accident, but to an original germ wisely organized for great purposes. For metaphysics, perhaps more than any other science, is implanted in us in its basic features by nature itself, and cannot be regarded at all as the product of an arbitrary choice or as a chance extension in the course of experiences, from which it separates itself entirely.

With all its concepts and laws of the understanding, which suffice for empirical use and thus within the world of sense, reason nevertheless finds no satisfaction on its own. For questions recurring endlessly rob it of all hope of a complete solution. The transcendental ideas, which aim at this completion, are such problems of reason. Now reason sees clearly that the world of sense cannot contain this completion; nor, therefore, can all those concepts that serve solely to understand it: space and time and everything we have listed under the name of pure concepts of the understanding. The world of sense is nothing but a chain of appearances connected according to universal laws. It therefore has no subsistence of its own, is not properly the thing in itself, and thus necessarily refers to what contains the ground of this appearance: to beings that can be cognized not merely as appearance but as things in themselves. In cognition of them alone can reason hope at last to see its demand for completeness satisfied in the progression from the conditioned to its conditions.

Above (§§ 33, 34) we indicated the limits of reason with regard to all cognition of mere beings of thought. Now that the transcendental ideas nevertheless make our progression to them necessary, and have thus led us, as it were, only to the contact between full space, experience, and empty space, the noumena of which we can know nothing, we can also determine the boundaries of pure reason. For in all boundaries there is also something positive—for example, a surface is the boundary of corporeal space, yet is itself a space; a line is a space that is the boundary of a surface; a point is the boundary of a line, yet is still a place in space—whereas limits contain mere negations. The limits indicated in the sections cited are no longer enough once we have found that something lies beyond them, although we shall never cognize what it is in itself. For the question now is: how does our reason proceed in this connection of what we know with what we do not know and shall never know? Here there is an actual connection of the known with something wholly unknown, which it will always remain; and even if the unknown should not thereby become in the least better known—as indeed there is no hope that it will—the concept of this connection must nevertheless be capable of determination and clarification.

We are therefore to think of an immaterial being, an intelligible world, and a supreme being—all of them noumena—because only in these, as things in themselves, does reason find the completion and satisfaction it can never hope for in deriving appearances from grounds homogeneous with them. And appearances do actually refer to something distinct from them, hence wholly heterogeneous, since appearances always presuppose a thing in itself and therefore point to it, whether or not we cognize it more closely.

But since we can never cognize these beings of the understanding according to what they may be in themselves—that is, determinately—and yet must nevertheless assume them in relation to the world of sense and connect them with it through reason, we can at least think this connection by means of concepts expressing their relation to the world of sense. For if we think a being of the understanding through nothing but pure concepts of the understanding, we actually think nothing determinate, and our concept is therefore without meaning. If we think it through properties borrowed from the world of sense,

it is no longer a being of the understanding; it is thought as one of the phenomena and belongs to the world of sense. Let us take an example from the concept of the supreme being.

The *deistic* concept is an entirely pure concept of reason, but it represents only a thing containing all reality, without being able to determine any single reality. For to do that, an example would have to be borrowed from the world of sense, in which case I would always be dealing only with an object of the senses, not with something wholly heterogeneous that cannot be an object of the senses at all. For example, I would attribute understanding to it; but I have no concept whatever of an understanding except one like my own, namely one to which intuitions must be given through the senses, and which occupies itself with bringing them under rules of the unity of consciousness. But then the elements of my concept would always lie in appearance, whereas it was precisely the inadequacy of appearances that compelled me to go beyond them to the concept of a being not at all dependent on appearances, or intertwined with them as conditions of its determination. But if I separate understanding from sensibility in order to have a pure understanding, nothing remains but the mere form of thinking without intuition, through which alone I can cognize nothing determinate, hence no object. For that purpose I would have to think of another understanding that intuited objects, of which, however, I have not the slightest concept, because human understanding is discursive and can cognize only through universal concepts. The same happens if I attribute a will to the supreme being. For I have this concept only by drawing it from my inner experience; but underlying it is the dependence of my satisfaction on objects whose existence we need, and thus sensibility, which entirely contradicts the pure concept of the supreme being.

Hume's objections to deism are weak and never touch anything more than the proofs, never the proposition of the deistic assertion itself. But as regards theism, which is supposed to arise through a closer determination of our concept of the supreme being, there merely transcendent, they are very strong and, depending on how this concept is framed, irrefutable in certain cases—indeed, in all the usual ones. Hume always insists on this: through the mere concept of

an original being to which we attribute only ontological predicates—eternity, omnipresence, omnipotence—we actually think nothing determinate at all; properties must be added that can yield a concept in concreto. It is not enough to say that it is a cause; one must say what its causality is like, perhaps through understanding and will. Here his attacks on the matter itself, namely theism, begin, whereas before he had merely stormed the grounds of proof for deism, which entails no particular danger. His dangerous arguments all concern anthropomorphism, which he holds to be inseparable from theism and to make it self-contradictory; but if anthropomorphism were omitted, theism would fall with it, leaving nothing but a deism from which nothing can be made, which can be of no use to us and serve as no foundation whatever for religion and morals. If this inevitability of anthropomorphism were certain, then, whatever the proofs of the existence of a supreme being might be, and even if they were all conceded, we could still never determine the concept of this being without entangling ourselves in contradictions.

If we combine the prohibition requiring us to avoid all transcendent judgments of pure reason with the command, apparently conflicting with it, to go out as far as concepts lying outside the field of immanent, or empirical, use, we become aware that both can coexist, but only precisely on the *boundary* of every permissible use of reason. For this boundary belongs just as much to the field of experience as to that of beings of thought. At the same time, we are thereby taught how those remarkable ideas serve solely to determine the boundaries of human reason: on the one hand, not to extend experiential cognition without limit, so that nothing but the world would remain for us to cognize; and on the other, nevertheless not to go beyond the boundary of experience and seek to judge things outside it as things in themselves.

We keep to this boundary, however, when we restrict our judgment solely to the relation the world may have to a being whose very concept lies outside all cognition of which we are capable within the world. For then we attribute to the supreme being none of the properties *in themselves* through which we think objects of experience, and thereby avoid *dogmatic* anthropomorphism. Yet we

do attribute them to its relation to the world, and allow ourselves a *symbolic* anthropomorphism, which in fact concerns only language and not the object itself.

When I say that we are compelled to regard the world *as if* it were the work of a supreme understanding and will, I actually say no more than this: as a watch, a ship, a regiment stands to its maker, builder, commander, so the world of sense—or everything that constitutes the foundation of this totality of appearances—stands to the unknown. Through this I cognize the unknown not indeed according to what it is in itself, but according to what it is for me, namely with regard to the world of which I am a part.

Section 58



§ 58.

Such cognition is cognition *by analogy*. This does not mean, as the word is commonly taken, an imperfect similarity between two things, but a perfect similarity between two relations in wholly dissimilar things.^[357-1] Through this analogy there still remains a concept of the supreme being sufficiently determinate for us, although we have omitted everything that could determine it absolutely and *in itself*. For we do determine it in relation to the world, and thus to ourselves, and we need nothing more. *Hume's* attacks on those who wish to determine this concept absolutely, borrowing the materials for it from themselves and the world, do not touch us. Nor can he reproach us with having nothing left once objective anthropomorphism is removed from our concept of the supreme being.

For if we are only granted at the outset—as Hume, too, speaking as Philo against Cleanthes in his *Dialogues*, allows—the *deistic* concept of the original being as a necessary hypothesis, in which the original being is thought through purely ontological predicates of substance, cause, etc., then nothing can prevent us from predicating of this being a *causality through reason* with regard to the world, and thus passing over to theism, without being compelled to attribute this reason to it *in itself* as an inherent property. *We must make this concession*, because reason, driven through the world of sense by nothing but conditions that are always conditioned in turn, can have no satisfaction at all

without it; and *we can quite properly make it*, without falling into anthropomorphism, which transfers predicates from the world of sense to a being entirely distinct from the world. For those predicates are mere categories, which yield no determinate concept of it, but for that very reason no concept restricted to conditions of sensibility either. As regards the first point, assuming in turn a supreme reason as a cause of all connections in the world is the only possible way to advance the use of reason with regard to all possible experience in the world of sense to the highest degree, in thoroughgoing agreement with itself. Such a principle must benefit reason throughout, and can nowhere harm it in its use in nature. *Secondly*, however, reason is not thereby transferred as a property to the original being *in itself*, but only to *its relation* to the world of sense, and anthropomorphism is thus entirely avoided. For here we consider only the *cause* of the rational form found everywhere in the world, and attribute reason to the supreme being insofar as it contains the ground of this rational form of the world, but only by analogy. That is, this expression indicates only the relation that the supreme cause, unknown to us, has to the world, so as to determine everything in it in the highest degree according to reason. This ensures that we use the property of reason not to think God, but to think the world through it in the way necessary to obtain the greatest possible use of reason with regard to the world according to one principle. We thereby acknowledge that the supreme being, as regards what it is in itself, is entirely inscrutable to us and even unthinkable *in a determinate way*. We are thus restrained from making a transcendent use of our concepts of reason as an efficient cause, through the will, in order to determine the divine nature through properties that are, after all, always borrowed only from human nature, and from losing ourselves in crude or visionary concepts. On the other hand, we are also restrained from flooding our contemplation of the world with hyperphysical modes of explanation according to our concepts of human reason transferred to God, and from diverting it from its proper vocation: to be a study of mere nature through reason, not a presumptuous derivation of its appearances from a supreme reason. The expression suited to our weak concepts will be that we think the world *as if*, in its existence and inner determination, it originated

from a supreme reason. In this way we partly cognize the constitution belonging to the world itself, without presuming to determine that of its cause in itself; and partly, on the other hand, place the ground of this constitution, the rational form in the world, in *the relation* of the supreme cause to the world, without finding the world sufficient for this on its own.^[360-1]

In this way the difficulties that seem to oppose theism disappear: we combine *Hume's* principle of not driving the use of reason dogmatically beyond the field of all possible experience with another principle that *Hume* entirely overlooked, namely, not to regard the field of possible experience as something that bounds itself in the eyes of our reason. Here the critique of reason marks the true middle way between the dogmatism that *Hume* opposed and the skepticism he wished to introduce in its place. This is not like other middle ways that one is advised to determine for oneself more or less mechanically—a little from one side and a little from the other—by which no one is taught anything better; rather, it is a middle way that can be determined precisely according to principles.

^[357-1]: Thus there is an analogy between the juridical relation of human actions and the mechanical relation of motive forces: I can never do anything to another without giving them a right to do the very same to me under the same conditions, just as no body can act on another with its motive force without thereby causing the other to react against it with an equal force. Here right and motive force are entirely dissimilar things, yet in their relation there is complete similarity. Through such an analogy I can therefore give a relational concept of things that are absolutely unknown to me. For example, as the promotion of children's happiness = a stands to parental love = b, so the welfare of the human race = c stands to the unknown in God = x, which we call love. This is not as though it had the slightest similarity to any human inclination, but because we can regard its relation to the world as similar to the relation things in the world have to one another. The relational concept here, however, is a mere category, namely the concept of cause, which has nothing to do with sensibility.

[³⁶⁰-1]: I will say: the causality of the supreme cause is, with regard to the world, what human reason is with regard to the works of its skill. The nature of the supreme cause itself thereby remains unknown to me; I compare only its effect known to me—the order of the world—and the rationality of that effect with the effects of human reason known to me, and therefore call the supreme cause a reason, without thereby attributing to it as its property precisely what I understand by this expression in human beings, or anything else known to me.

Section 59



§ 59.

At the beginning of this remark I used the image of a *boundary* to establish the limits of reason with regard to the use appropriate to it. The world of sense contains only appearances, which are not things in themselves; the understanding must therefore assume the latter, noumena, precisely because it cognizes the objects of experience as mere appearances. Both are comprehended together in our reason, and the question is: how does reason proceed to bound the understanding with regard to both fields? Experience, which contains everything belonging to the world of sense, does not bound itself: from every conditioned thing it always reaches only another conditioned thing. What is to bound it must lie entirely outside it, and this is the field of pure beings of the understanding. But for us this is an empty space insofar as the *determination* of the nature of these beings is concerned; and to this extent, if dogmatically determinate concepts are intended, we cannot go beyond the field of possible experience. Yet since a boundary is itself something positive, belonging both to what is within it and to the space lying outside a given totality, there is indeed an actual positive cognition in which reason shares merely by extending itself to this boundary, though without attempting to go beyond it. For there reason finds before it an empty space in which it can indeed think forms for things, but no things themselves. Yet the *bounding* of the field of experience by something otherwise unknown to it is still a cognition that remains to reason from

this standpoint. Through this, reason is neither confined within the world of sense nor wandering fancifully outside it, but, as befits knowledge of the boundary, restricts itself solely to the relation of what lies outside it to what is contained within.

Natural theology is such a concept on the boundary of human reason, where reason sees itself compelled to look out toward the idea of a supreme being—and in a practical relation also toward that of an intelligible world—not to determine anything with regard to this mere being of the understanding, and thus outside the world of sense, but only to guide its own use within that world according to principles of the greatest possible unity, both theoretical and practical. For this purpose it employs the world's relation to an independent reason as the cause of all these connections, not thereby merely to *invent* a being, but, since outside the world of sense there must necessarily be something that only the pure understanding thinks, to determine this something only in such a way, though admittedly solely by analogy.

In this way our earlier proposition, the result of the whole Critique, remains: “that reason, through all its a priori principles, never teaches us anything more than objects of possible experience alone, and even of these nothing more than can be cognized in experience.” But this restriction does not prevent reason from leading us to the objective *boundary* of experience, namely its *relation* to something that is not itself an object of experience but must nevertheless be the supreme ground of all experience. Yet it teaches us nothing about this something in itself, but only in relation to reason's own complete use, directed toward the highest purposes, in the field of possible experience. This, however, is also all the benefit one can reasonably even wish for here, and with which one has cause to be satisfied.

Section 60



§ 60.

We have thus presented metaphysics in detail as regards its subjective possibility, as it is actually given in the *natural predisposition* of human reason, and specifically in what constitutes the essential purpose of its cultivation. We found, however, that this *merely natural* use of such a predisposition of our reason, unless a discipline possible only through scientific critique curbs it and sets limits to it, entangles reason in extravagant *dialectical* inferences, partly merely specious and partly even in conflict with one another. Moreover, this sophistical metaphysics is dispensable for advancing cognition of nature, and may even be detrimental to it. It therefore still remains a problem worthy of investigation to discover the *natural purposes* at which this predisposition to transcendent concepts in our nature may be aimed, since everything found in nature must originally be designed for some useful purpose.

Such an investigation is indeed precarious. I also confess that what I can say about it is only conjecture, like everything concerning nature's primary purposes; and this alone may be allowed me in this case, since the question concerns not the objective validity of metaphysical judgments but our natural predisposition to them, and thus lies outside the system of metaphysics, in anthropology.

If I take together all the transcendental ideas, whose totality constitutes the proper task of natural pure reason, compelling it to leave mere contemplation of nature and go beyond all possible experience, and in this endeavor to bring about the thing—whether knowledge or sophistry—called metaphysics, I believe I discern the following aim of this natural predisposition. It is to free our concept from the fetters of experience and the limits of mere contemplation of nature far enough for it at least to see a field opened before it containing only objects for the pure understanding, which no sensibility can reach. This is not intended to occupy us speculatively with these objects, since we find no ground on which to gain a footing, but to enable practical principles to extend to the universality that reason indispensably requires for moral purposes: without finding such a space before them for their necessary expectation and hope, they could not so extend.

Now I find that the *psychological* idea, however little insight it gives me into the pure nature of the human soul, exalted above all concepts of experience, at least shows clearly enough the inadequacy of those concepts. It thereby leads me away from materialism, as a psychological concept unfit for any explanation of nature and, moreover, one that narrows reason in a practical respect. Likewise, through the visible inadequacy of all possible cognition of nature to satisfy reason in its rightful inquiries, the *cosmological* ideas serve to keep us from naturalism, which would present nature as sufficient in itself. Finally, all natural necessity in the world of sense is always conditioned, since it always presupposes the dependence of things on others; unconditioned necessity must be sought only in the unity of a cause distinct from the world of sense. Yet the causality of this cause, in turn, if it were mere nature, could never make the existence of the contingent comprehensible as its consequence. Through the *theological* idea, therefore, reason frees itself from fatalism, both that of a blind natural necessity in the connection of nature itself without a first principle, and that of a blind necessity in the causality of this principle itself; it leads to the concept of a cause through freedom, hence of a supreme intelligence. Thus the transcendental ideas, even if they do not serve to instruct us positively, nevertheless serve to abolish the presumptuous assertions of *materialism*, *natural-*

ism, and *fatalism*, which narrow the field of reason, and thereby to make room for moral ideas outside the field of speculation. This, it seems to me, would to some extent explain that natural predisposition.

The practical benefit that a merely speculative science may have lies outside the boundaries of that science. It can therefore be regarded only as a scholium and, like all scholia, does not belong to the science itself as a part of it. Yet this relation lies at least within the boundaries of philosophy, especially philosophy drawn from pure sources of reason, where the speculative use of reason in metaphysics must necessarily be united with its practical use in morals. Hence the unavoidable dialectic of pure reason, considered in a metaphysics as a natural predisposition, deserves not merely to be resolved as an illusion but also, if possible, to be explained in its purpose as an arrangement of nature. Yet this task, as a work beyond its strict obligation, cannot rightly be required of metaphysics proper.

A second scholium, more closely related to the content of metaphysics, would be the solution of the questions pursued in the Critique from pages 642 to 668. For certain principles of reason are set forth there that determine a priori the order of nature, or rather the understanding that is to seek its laws through experience. They seem to be constitutive and legislative with regard to experience, although they spring from reason alone, which, unlike the understanding, must not be regarded as a principle of possible experience. Whether this agreement rests on the following may be considered further by those who wish to investigate the nature of reason even outside its use in metaphysics, indeed in the general principles for making a natural history as such systematic: just as nature does not attach in itself to appearances or their source, sensibility, but is found only in the relation of the latter to the understanding, so the thoroughgoing unity of this understanding's use for the sake of the entirety of possible experience in a system may belong to it only in relation to reason, so that experience too stands indirectly under the legislation of reason. For in the work itself I did indeed present this problem as important, but did not attempt its solution.^[364-1]

And so I conclude the analytic solution of the principal question I posed myself—How is metaphysics possible at all?—by ascending from that in which its use is actually given, at least in its consequences, to the grounds of its possibility.

[³⁶⁴-1]: Throughout the Critique it has been my constant intention to omit nothing that could bring the investigation of the nature of pure reason to completeness, however deeply hidden it might lie. Everyone is afterward free to decide how far to pursue their investigation, provided they have been shown what investigations might still be undertaken. For this can fairly be expected of someone who has made it their task to survey this whole field, so as afterward to leave it to others for future cultivation and division as they choose. The two scholia also belong here; their dryness will hardly commend them to amateurs, and they have therefore been set out only for connoisseurs.

Solution: How is metaphysics possible as a science?



Solution of the general question of the Prolegomena.

How is metaphysics possible as a science?

Metaphysics exists as a natural predisposition of reason, but on its own it is also dialectical and deceptive, as the analytic solution of the third principal question showed. To draw principles from this predisposition, then, and in using them to follow an illusion that is natural but nonetheless false, can never produce science. It can produce only a vain dialectical art, in which one school may outdo another, but none can ever win rightful and lasting assent.

If metaphysics as a science is to claim not merely deceptive persuasion but insight and conviction, a critique of reason itself must set out the entire stock of a priori concepts; their division according to their various sources (sensitivity, understanding, and reason); a complete table of them; and the analysis of all these concepts, together with everything that can be inferred from them. Above all, it must then establish, through the deduction of these concepts, the possibility of synthetic a priori cognition, the principles of their use, and finally the limits of that use—all within a complete system. Critique, and critique alone, thus contains the entire thoroughly tested and substantiated plan, indeed all the means of carrying it out, by which metaphysics can be brought into being as a science. By any other paths or means it is impossible. The question here,

then, is not so much how this undertaking is possible, but how to set it in motion, how to turn capable minds from their previous misguided and fruitless work toward an unerring approach, and how best to direct their united efforts toward the common goal.

This much is certain: anyone who has once tasted critique will forever be disgusted by all the dogmatic babble he previously made do with out of necessity, because his reason needed something and could find nothing better to occupy it. Critique stands to ordinary school metaphysics exactly as *chemistry* stands to *alchemy*, or *astronomy* to fortune-telling *astrology*. I will vouch for this: no one who has thought through and grasped the principles of critique, even as presented in these Prolegomena alone, will ever return to that old and sophistical sham science. Rather, he will look forward with a certain delight to a metaphysics now entirely within his power, requiring no further preliminary discoveries, and capable for the first time of giving reason lasting satisfaction. For among all possible sciences, metaphysics alone can confidently count on this advantage: it can be brought to completion and to a stable condition, in which it need undergo no further change and can receive no additions through new discoveries. Here reason has the sources of its cognition not in objects and their intuition, from which it cannot learn anything further, but within itself. Once it has set out the fundamental laws of its capacity completely and with a precision that excludes every misinterpretation, nothing remains that pure reason could cognize a priori, or even ask about with justification. The assured prospect of knowledge so definite and self-contained has a particular attraction, even if we set aside all its usefulness, of which I will speak later.

Every spurious art, every hollow wisdom, has its day; eventually it destroys itself, and its highest cultivation is also the moment of its downfall. That this time has now come for metaphysics is shown by the condition into which it has fallen among all learned nations, despite the zeal otherwise devoted to sciences of every kind. The old organization of university studies still preserves its shadow; a single academy of sciences still occasionally encourages one attempt or another by offering prizes. Yet it is no longer counted among the solid sciences,

and anyone may judge for himself how an intelligent man would receive the well-meant but scarcely envied compliment of being called a great metaphysician.

But although the time of decline for all dogmatic metaphysics is undoubtedly here, much is still lacking before we can say that the time of its rebirth through a thorough and complete critique of reason has arrived in turn. Every transition from one inclination to its opposite passes through a state of indifference, and this moment is the most dangerous for an author, but, it seems to me, the most favorable for the science. For when partisan feeling has died out through the complete dissolution of former ties, minds are in the best condition to listen gradually to proposals for an alliance on a different plan.

When I say that I hope these Prolegomena may stimulate inquiry in the field of critique and offer the general spirit of philosophy, which seems to lack nourishment in its speculative part, a new and promising subject to engage it, I can already imagine the question everyone will ask who grew impatient and weary on the thorny paths along which I led him in the Critique: On what do I base this hope? I answer: *on the irresistible law of necessity*.

We can no more expect the human mind ever to abandon metaphysical inquiries altogether than expect ourselves to stop breathing altogether rather than keep drawing impure air. There will therefore always be metaphysics in the world, and, what is more, in every person, especially every reflective person. In the absence of a public standard, each will fashion it to suit himself. Now, what has so far been called metaphysics can satisfy no examining mind, yet renouncing it altogether is also impossible. In the end, then, a critique of pure reason itself must be *attempted*, or, if one already exists, *examined* and submitted to general scrutiny. There is otherwise no means of meeting this pressing need, which is something more than mere curiosity.

Since becoming acquainted with critique, whenever I have finished reading a work of metaphysical content that entertained and cultivated me through the precision of its concepts, its variety and order, and its easy presentation, I have been unable to refrain from asking: *Has this author advanced metaphysics even a single step?* I ask the forgiveness of those learned men whose writings have

benefited me in other respects and have always helped cultivate my mental powers. For I confess that neither in their attempts nor in my own more modest ones, for which self-love nonetheless pleads, have I been able to find the slightest advance in the science. The reason is quite natural: the science did not yet exist, and it cannot be assembled piecemeal; its germ must first be fully performed in critique. To prevent any misunderstanding, however, we must recall from what has gone before that although the analytic treatment of our concepts certainly does much to benefit the understanding, it does not advance the science of metaphysics in the least. These analyses of concepts are only the materials from which the science must first be built. Thus one may analyze and define the concept of substance and accident as beautifully as one likes; that is all very well as preparation for some future use. But if I cannot prove that in everything that exists substance persists and only accidents change, all that analysis has not advanced the science in the least. So far metaphysics has been unable to give a valid a priori proof of this proposition, or of the principle of sufficient reason, much less of any more complex proposition, such as one belonging to the doctrine of the soul or cosmology, or indeed of any synthetic proposition whatever. All that analysis has therefore accomplished, created, and advanced nothing; after so much bustle and noise, the science still stands where it stood in *Aristotle's* day, although the preparations for it have unquestionably been made much better than before, if only the guiding thread to synthetic cognitions had first been found.

If anyone feels offended by this, he can easily refute the charge. Let him cite just one synthetic proposition belonging to metaphysics that he offers to prove a priori in a dogmatic manner. Only when he achieves this will I grant that he has really advanced the science, even if ordinary experience already confirms the proposition sufficiently. No demand could be more moderate or fair; and in the inevitably certain event of failure, no verdict could be more just than this: metaphysics as a science has never yet existed at all.

Should the challenge be accepted, I must ask that only two things be excluded: first, the plaything of *probability* and conjecture, which suits metaphysics as poorly as it does geometry; second, decisions reached by the divining rod of so-

called *common sense*, which does not respond for everyone but follows personal characteristics.

As for the first, nothing could be more absurd than to seek to ground one's judgments on probability and conjecture in metaphysics, a philosophy of pure reason. Whatever is to be cognized a priori is thereby declared apodictically certain, and must therefore be proved as such. One might just as well try to found geometry or arithmetic on conjectures. For the latter's calculus probabiliū (the calculus of probabilities) contains not probable judgments but entirely certain judgments about the degree of possibility of certain cases under given conditions of the same kind. In the sum of all possible cases these must accord with the rule without fail, although the rule is not sufficiently determinate for each individual occurrence. Only in empirical natural science may conjectures be admitted, through induction and analogy, and even there the possibility of what I assume must at least be entirely certain.

The *appeal to common sense* is, if possible, in an even worse position when the issue is concepts and principles, not insofar as they are to hold for experience, but insofar as they are claimed to hold even outside the conditions of experience. For what is *sound understanding*? It is *ordinary understanding* insofar as it judges correctly. And what, then, is ordinary understanding? It is the capacity to cognize and use rules in concreto, as distinguished from *speculative understanding*, which is the capacity to cognize rules in abstracto. Ordinary understanding will thus scarcely understand the rule that everything that happens is determined through its cause, and will never be able to discern it in this general form. It therefore asks for an example from experience. When it hears that this means nothing other than what it has always thought whenever a windowpane was broken or a household object went missing, it understands the principle and accepts it as well. Ordinary understanding thus has no further use than where it can see its rules confirmed in experience, although they really do belong to it a priori. To discern them a priori and independently of experience, then, is a matter for speculative understanding and lies entirely outside the horizon of ordinary understanding. Yet metaphysics is concerned solely with the latter kind of cognition. It is surely a poor sign of sound under-

standing to appeal to that authority, which has no judgment at all in this matter and which one otherwise tends to look down on, except when one is hard pressed and at a loss for guidance or help in one's speculation.

There is a familiar evasion regularly employed by these false friends of ordinary common sense, who praise it highly on occasion but generally despise it. They say: There must, after all, be some propositions that are immediately certain, for which not only is no proof required, but no account at all; otherwise we could never reach an end to the grounds of our judgments. But to justify this license they can never cite anything indubitable that they may immediately attribute to ordinary common sense—apart from the principle of contradiction, which is insufficient to establish the truth of synthetic judgments—except mathematical propositions: for example, that twice two makes four, that between two points there is only one straight line, and so on. But these judgments are worlds apart from those of metaphysics. For in mathematics I can myself make, or construct, through my thinking everything that I represent to myself through a concept as possible. I successively add one two to another two and myself make the number four; or in thought I draw all sorts of lines from one point to another, and can draw only a single one that is similar to itself in all its parts, equal as well as unequal. But from the concept of one thing, all my powers of thought cannot extract the concept of something else whose existence is necessarily connected with the first. I must consult experience. And although my understanding supplies me a priori—yet always only in relation to possible experience—with the concept of such a connection, that of causality, I still cannot present it a priori in intuition, as I can the concepts of mathematics, and thus demonstrate its possibility a priori. Rather, if this concept is to be valid a priori—as metaphysics requires—then, together with the principles of its application, it always needs a justification and a deduction of its possibility. Otherwise we do not know how far it is valid, or whether it can be used only within experience or also beyond it. In metaphysics, then, as a speculative science of pure reason, we can never appeal to ordinary common sense. We can, however, appeal to it when we are compelled to leave metaphysics behind and renounce all pure speculative cognition, which must always be knowledge, and

therefore also renounce metaphysics itself and its instruction in certain matters; when a rational faith is found to be the only thing possible for us and sufficient for our needs, perhaps even more beneficial than knowledge itself. For then the situation is entirely changed. Metaphysics must be science, not only as a whole but in all its parts, or else it is nothing at all; as speculation of pure reason, it has nowhere to find support except in universal insights. Outside it, however, probability and common sense may well have their useful and rightful employment, but according to quite distinct principles, whose weight always depends on their relation to the practical.

This is what I consider myself entitled to require for the possibility of metaphysics as a science.

Appendix



On what can be done to make metaphysics actual as a science.

Since none of the paths taken so far has reached this goal, and it will probably never be reached without a prior critique of pure reason, it seems no unreasonable demand that the attempt now laid before us be subjected to an exact and careful examination—unless one considers it more advisable to abandon all claims to metaphysics altogether. In that case there is no objection, provided one remains faithful to the resolution. If we take the course of things as it actually runs, not as it ought to run, there are two kinds of judgment: a *judgment that precedes investigation*, such as, in our case, the reader's judgment of the Critique of Pure Reason from the standpoint of his own metaphysics, although the Critique is first to investigate the very possibility of metaphysics; and another *judgment that follows investigation*, in which the reader can for a time set aside the consequences of the critical inquiries, which may clash sharply with the metaphysics he has hitherto accepted, and first examine the grounds from which those consequences may have been derived. If what ordinary metaphysics teaches were established as certain, as geometry is, for example, the first manner of judging would hold good. For if the consequences of certain principles contradict established truths, those principles are false and must be rejected without any further investigation. But if metaphysics has no stock of indisputably certain synthetic propositions; if, perhaps, many of its propositions, as plausible as the best of them, nevertheless conflict with one

another in their consequences; and if no secure criterion at all for the truth of properly metaphysical, synthetic propositions is to be found in it, then the preceding manner of judging is inadmissible. An investigation of the principles of critique must precede every judgment of its worth or worthlessness.

An example of a judgment of the Critique that precedes investigation.

A judgment of this kind is to be found in the Göttingische gelehrte Anzeigen, supplement, third issue, January 19, 1782, page 40 and following.

When an author thoroughly acquainted with the subject of his work, who has endeavored throughout to bring his own reflection to its treatment, falls into the hands of a reviewer perceptive enough to discern the points on which the work's worth or worthlessness really depends, who does not cling to words but pursues the matters themselves, and does not merely sift and test the principles from which the author began, the author may indeed dislike the severity of the judgment. The public is indifferent to this, for it gains by it. And the author himself can be satisfied that he has an opportunity to correct or clarify his arguments, examined early on by someone who understands the subject, and thus, if he believes himself fundamentally right, to remove in good time a stumbling block that might later harm his work.

With my reviewer I find myself in an entirely different position. He seems not to understand at all what really mattered in the inquiry on which I was engaged, successfully or not. Whether the fault lies in impatience at thinking through an extensive work, in a peevish mood at the threatened reform of a science in which he believed he had long since settled everything, or—what I am reluctant to suspect—in a genuinely narrow conception that prevents him from ever thinking beyond his school metaphysics: in short, he rushes headlong through a long series of propositions from which, without knowing their premises, one can make no sense at all. Here and there he scatters his censure, whose grounds the reader can no more discern than he can understand the propositions against which it is supposed to be directed. He can therefore neither help inform the public nor do me the slightest harm in the judgment of

those who understand the subject. I would accordingly have passed over this review altogether, had it not given me occasion for a few clarifications that may in some cases protect the reader of these Prolegomena from misinterpretation.

Yet in order to seize on a standpoint from which he can most easily present the entire work in a light unfavorable to its author, without troubling himself with any particular investigation, the reviewer begins and ends by saying: "This work is a system of transcendental—or, as he translates it, higher^[373-1]—idealism."

At the sight of this line I soon knew what sort of review would emerge. It was much as if someone who had never heard of or seen anything of geometry found a copy of *Euclid* and was asked to judge it. Having come across many figures as he leafed through it, he might say: "The book is a systematic guide to drawing. The author uses a peculiar language to give obscure, unintelligible instructions, which in the end can accomplish no more than anyone can achieve with a good natural eye, etc."

Let us nevertheless see what sort of idealism it is that runs throughout my work, although it is far from constituting the soul of the system.

The proposition of all genuine idealists, from the Eleatic school to Bishop *Berkeley*, is contained in this formula: "All cognition through the senses and experience is nothing but sheer illusion, and only in the ideas of pure understanding and reason is there truth."

The principle that governs and determines my idealism throughout, by contrast, is this: "All cognition of things from mere pure understanding or pure reason is nothing but sheer illusion, and only in experience is there truth."

But this is precisely the opposite of that idealism proper. How, then, did I come to use this expression for an entirely opposite purpose, and how did the reviewer come to see it everywhere?

The solution to this difficulty rests on something that could very easily have been discerned from the context of the work, had one wished to do so. Space and time, together with everything they contain, are not things or their properties in themselves, but belong only to their appearances. Up to this point I profess the same belief as those idealists. But they, and *Berkeley* above all, regarded

space as a merely empirical representation, which, like the appearances within it, becomes known to us with all its determinations only through experience or perception. I, by contrast, first show that space, and likewise time, to which *Berkeley* paid no attention, can be cognized by us a priori together with all its determinations. For space, as well as time, belongs to us before all perception or experience as the pure form of our sensibility, making possible all its intuition and therefore all appearances as well. It follows that, since truth rests on universal and necessary laws as its criteria, experience for *Berkeley* can have no criteria of truth: he laid nothing a priori at the foundation of its appearances, from which it followed that experience was nothing but sheer illusion. For us, by contrast, space and time, in conjunction with the pure concepts of the understanding, prescribe a priori the law for all possible experience, which at the same time provides the secure criterion for distinguishing truth from illusion within it.^[375-1]

My so-called idealism, properly speaking critical idealism, is therefore of an entirely distinctive kind: it overturns ordinary idealism, and through it all a priori cognition, even that of geometry, first acquires objective reality. Without the ideality of space and time that I have proved, not even the most zealous realists could assert that reality. Under these circumstances, I wish I could give this conception of mine another name, to prevent every misunderstanding; but changing the term altogether is scarcely feasible. Let me therefore be permitted in the future, as already mentioned above, to call it formal, or better still critical, idealism, to distinguish it from the dogmatic idealism of *Berkeley* and the skeptical idealism of *Descartes*.

I find nothing else remarkable in the review of this book. Its author judges throughout en gros, a manner shrewdly chosen, since it betrays neither one's own knowledge nor one's ignorance. A single detailed judgment en détail, had it properly addressed the principal question, might have exposed my error, or perhaps the measure of the reviewer's insight into inquiries of this kind. Nor was it an ill-conceived stratagem for depriving readers who habitually form their idea of books solely from journal notices of any desire to read the book itself: to rush through a mass of propositions in a single breath, propositions

that, torn from their connection with their proofs and explanations, must necessarily sound absurd, especially when they are so diametrically opposed to all school metaphysics as these are; to batter the reader's patience to the point of disgust; and then, after acquainting me with the ingenious proposition that enduring illusion is truth, to close with the blunt but paternal lesson: "Why this quarrel with commonly accepted language? Why, and from what source, this idealistic distinction?" A judgment that in the end reduces everything distinctive in my book to a mere innovation in language, after declaring it metaphysical heresy, and clearly proves that my self-appointed judge has understood not the slightest thing about it, and has not properly understood even himself. [376-1]

The reviewer nevertheless speaks like a man who must be conscious of important and exceptional insights, which he still keeps hidden; for nothing in metaphysics has recently come to my attention that could justify such a tone. But he does the world a great wrong by withholding his discoveries. For no doubt others are in the same position as I am: despite all the fine things written in this field for a long time, they have been unable to find that the science has advanced a finger's breadth. One certainly still finds definitions sharpened, lame proofs fitted with new crutches, fresh patches or an altered cut given to the patchwork of metaphysics—but that is not what the world asks for. The world is sated with metaphysical assertions. What people want is the possibility of this science, the sources from which certainty in it can be derived, and secure criteria for distinguishing the dialectical illusion of pure reason from truth. The reviewer must possess the key to this, or he would never have spoken in so lofty a tone.

But I begin to suspect that such a need of the science may never have entered his thoughts. Otherwise he would have directed his review to this point, and even a failed attempt in so important a matter would have earned his respect. If that is so, we are good friends again. Let him think his way as deeply into his metaphysics as he likes; no one shall hinder him. Only he cannot judge what lies outside metaphysics: its source within reason. That my suspicion is not groundless I prove by this: he did not mention a word about the possibility

of synthetic a priori cognition, which was the real problem, on whose solution the fate of metaphysics entirely depends, and to which my Critique, just like my Prolegomena here, was wholly directed. The idealism he stumbled on and remained stuck at was incorporated into the doctrine only as the sole means of solving that problem, although it also received confirmation on other grounds. Here he ought to have shown either that the problem lacks the importance I assign it, as I do again now in the Prolegomena, or that my concept of appearances cannot solve it at all, or that it can be better solved in some other way. But I find not a word of this in the review. The reviewer therefore understood nothing of my work, and perhaps nothing of the spirit and essence of metaphysics itself—unless, as I prefer to assume, it was rather a reviewer's haste, indignant at the difficulty of working through so many obstacles, that cast an unfavorable shadow over the work before him and made its fundamental features unrecognizable to him.

A learned journal is still very far from being able to maintain in the field of metaphysics the standing it otherwise deserves, as it does in other fields, however well and carefully its contributors may be chosen. Other sciences and branches of knowledge do, after all, have their standards. Mathematics has its standard within itself; history and theology have theirs in secular or sacred books; natural science and medicine in mathematics and experience; jurisprudence in law books; and even matters of taste in the models of the ancients. But for judging the thing called metaphysics, the standard has yet to be found. I have attempted to determine both the standard and its use. What, then, is to be done until it has been discovered, if writings of this kind must nonetheless be judged? If they are dogmatic, one may proceed as one likes: no one will long play the master over another in this field without someone appearing to repay him in kind. But if they are critical, not with regard to other writings but to reason itself, so that the standard of judgment cannot already be assumed but is only now being sought, objections and censure need not be unwelcome. Yet a spirit of tolerance must underlie them, for the need is shared, and the lack of the requisite insight makes the authority of a judge delivering a verdict inadmissible.

To connect this defense of mine with the interests of the philosophizing community as well, I propose a trial that will decide how all metaphysical inquiries must be directed toward their common goal. It is nothing other than what mathematicians have sometimes done to decide, in a contest, the superiority of their methods: a challenge to my reviewer to prove in his own way any single genuinely metaphysical proposition he asserts—that is, a synthetic proposition cognized *a priori* from concepts. It may even be one of the most indispensable: for example, the principle of the persistence of substance, or of the necessary determination of events in the world by their cause. But he must prove it, as is proper, on *a priori* grounds. If he cannot—and silence is an admission—he must concede that, since metaphysics is absolutely nothing without apodictic certainty in propositions of this kind, its possibility or impossibility must before all else first be settled in a critique of pure reason. He is therefore bound either to confess that my principles of critique are correct or to prove their invalidity. Yet I can already foresee that, however confidently he has so far relied on the certainty of his principles, when it comes to a rigorous test he will not find a single one in the whole compass of metaphysics that he can boldly put forward. I will therefore grant him the most favorable condition one could expect in a contest: I will relieve him of the *onus probandi* and take it upon myself.

For in these *Prolegomena* and in my *Critique*, pp. 426–461, he will find eight propositions, arranged in mutually contradictory pairs, while every one necessarily belongs to metaphysics, which must either accept or refute it—although there is not one that has not at some time been accepted by some philosopher. He is now free to choose whichever of these eight propositions he likes and accept it without proof, which I waive for him—but only one, since wasting time will serve him as little as it serves me—and then to attack my proof of its opposite. If I can nevertheless uphold this proof, and thus show that, according to principles every dogmatic metaphysics must necessarily acknowledge, the opposite of his adopted proposition can be proved just as clearly, it is thereby established that metaphysics has an inherited defect. This defect cannot be explained, much less remedied, unless we ascend to its birth-

place, pure reason itself. My Critique must then either be accepted or replaced by a better one, and thus must at least be studied, which is all I ask for now. If, on the contrary, I cannot uphold my proof, then a synthetic a priori proposition established from dogmatic principles stands firm on my opponent's side; my charge against ordinary metaphysics was therefore unjust; and I offer to acknowledge his censure of my Critique as legitimate, although that would still be far from following. For this, however, I think he would need to emerge from his anonymity. Otherwise I do not see how to prevent unnamed and yet uninvited opponents from honoring or assailing me with several challenges instead of one.

Proposal for an investigation of the Critique after which judgment may follow.

I am also indebted to the learned public for the silence with which it has honored my Critique for a considerable time. For this at least shows a suspension of judgment, and thus some inkling that a work which leaves all the familiar paths and strikes out on a new one, on which one cannot immediately find one's way, may nevertheless contain something capable of giving new life and fruitfulness to an important but now dead branch of human cognition. It therefore shows a caution against breaking off and destroying the still tender graft by a hasty judgment. An example of a judgment delayed on such grounds has just now come before my eyes in the *Gothaische gelehrte Zeitung*. Every reader will perceive its thoroughness for himself, without taking into account my praise, which is suspect in this matter, from its comprehensible and undistorted presentation of a part belonging to the first principles of my work.

And now, since an extensive building cannot possibly be judged immediately as a whole by a cursory survey, I propose that it be examined piece by piece, beginning with its foundation, using the present *Prolegomena* as a general outline with which the work itself could then be compared as occasion arises. If this request rested on nothing more than my own fancy of its importance, which vanity ordinarily lends to all one's own productions, it would be immodest and deserve to be rejected with indignation. But the affairs of all speculative philosophy now stand on the verge of complete extinction,

although human reason clings to them with an inclination that never dies. Only because it is incessantly deceived does this inclination now try, though in vain, to turn itself into indifference.

In our thinking age, we cannot suppose that many deserving men would fail to take every good opportunity to work together in the common interest of reason, which is becoming ever more enlightened, if only there is some hope of thereby reaching the goal. Mathematics, natural science, laws, arts, even morality, etc., still do not fill the soul entirely. There always remains a space in it marked out for mere pure and speculative reason. Its emptiness compels us to seek in grotesque fancies, trifles, or even visionary enthusiasm what appears to be occupation and entertainment, but is at bottom only distraction, to drown out the importunate call of reason. In accordance with its vocation, reason demands something that will satisfy it in itself, not merely keep it busy serving other purposes or the interests of inclinations. A consideration devoted solely to this sphere of reason subsisting for itself therefore has, as I have grounds to suppose, a great attraction for anyone who has even tried to extend his concepts this far, precisely because within this sphere all other branches of knowledge, and even ends, must converge and unite into a whole. I may well say that its attraction is greater than that of any other theoretical knowledge, which one would not readily take in exchange for it.

But I propose these Prolegomena as the plan and guiding thread of the inquiry, rather than the work itself, for this reason. I am still entirely satisfied with that work as regards its content, arrangement, method of instruction, and the care spent on weighing and testing each proposition precisely before setting it down. For it took years to satisfy myself fully about the sources not only of the whole, but sometimes of even a single proposition. Yet I am not entirely satisfied with my exposition in some sections of the Doctrine of Elements, such as the deduction of the concepts of the understanding or the section on the paralogisms of pure reason. A certain prolixity in them impedes clarity. In their place, what the Prolegomena say here concerning those sections may serve as the basis of examination.

The Germans are praised for their ability to advance further than other nations in whatever requires perseverance and sustained diligence. If this opinion is well founded, here is an opportunity to bring to completion an undertaking whose happy outcome can scarcely be doubted, in which all thinking people have an equal interest, but which has hitherto been unsuccessful, and thus to confirm that favorable opinion. This is especially so since the science concerned is of such a peculiar kind that it can be brought all at once to its entire completeness and to that *stable* condition in which it can be advanced no further in the least, nor enlarged or even altered by later discoveries. I do not count here embellishments through greater clarity here and there, or through added usefulness in various respects. This is an advantage that no other science has or can have, since none concerns a cognitive capacity so completely isolated, independent of others, and unmixed with them. Nor does the present moment seem unfavorable to my request. For in Germany now one scarcely knows what else to occupy oneself with, beyond the so-called useful sciences, that would not be mere play but also an undertaking through which a lasting end is achieved.

I must leave to others the devising of means by which the efforts of scholars could be united for such a purpose. Meanwhile, I do not intend to demand that anyone merely follow my propositions, or even to flatter myself with the hope of it. Rather, attacks, repetitions, restrictions, or else confirmations, additions, and extensions may arise as circumstances warrant. If only the matter is investigated from the ground up, it can now no longer fail to produce a system of doctrine, even if not my own, that can become a legacy to posterity for which it will have reason to be grateful.

What sort of metaphysics may be expected to follow from critique, once its principles have first been put on a sound footing, and how metaphysics, once stripped of its borrowed plumage, need by no means appear impoverished and reduced to an insignificant figure, but can in another respect appear richly and fittingly furnished, would take too long to show here. But other great benefits that such a reform would bring are immediately evident. Ordinary metaphysics was already useful in seeking out the elementary concepts of the pure under-

standing, in order to make them clear through analysis and determinate through definitions. It thereby became a means of cultivating reason, wherever reason might later see fit to turn. But that was all the good it did. For it nullified this merit in turn by encouraging conceit through rash assertions, sophistry through subtle evasions and glosses, and shallowness through the ease of disposing of the most difficult problems with a little school wisdom. This shallowness is all the more seductive the more it can choose to assume something of the language of science on the one hand and of popular accessibility on the other, and thus be all things to everyone, while in fact being nothing at all. Through critique, by contrast, our judgment is given a standard by which knowledge can be securely distinguished from sham knowledge. By being put fully into practice in metaphysics, critique establishes a way of thinking whose beneficial influence then extends to every other use of reason, and for the first time instills the true philosophical spirit. Nor should we underestimate the service it renders theology by making it independent of the judgment of dogmatic speculation, and thereby placing it in complete security against every attack from such opponents. For ordinary metaphysics, though it promised theology much support, could not afterward fulfill that promise. Moreover, by calling speculative dogmatism to its aid, it had done nothing but arm enemies against itself. Visionary enthusiasm, which in an enlightened age can gain ground only by hiding behind a school metaphysics, under whose protection it may dare to rave with reason, as it were, is driven by critical philosophy from this last hiding place. And beyond all this, it can hardly fail to matter to a teacher of metaphysics that he should at last be able to say, with general assent, that what he teaches is now finally *science* as well, and that a real benefit is thereby rendered to the community.

[³⁷³-1]: By no means *higher*. High towers and the metaphysically great men who resemble them, both usually surrounded by much wind, are not for me. My place is the fertile *bathos* of experience. The word transcendental, whose meaning I have indicated so often and which the reviewer has not even grasped—so cursorily has he looked at everything—does not mean something that goes beyond all experience, but something that does precede experience a priori, yet

is destined for nothing more than making cognition of experience possible. When these concepts overstep experience, their use is called transcendent, as distinguished from their immanent use, that is, their use restricted to experience. The work has sufficiently guarded against all misinterpretations of this kind; but the reviewer found misinterpretations to his advantage.

[³⁷⁵-1]: Idealism proper has always had a visionary purpose and can have no other. Mine, however, serves solely to comprehend the possibility of our a priori cognition of objects of experience, a problem that has never yet been solved, or even raised. This brings down the whole of visionary idealism, which always inferred from our a priori cognitions, even those of geometry, an intuition other than that of the senses, namely an intellectual one, as can already be seen in *Plato*. For it never occurred to anyone that the senses too might intuit a priori.

[³⁷⁶-1]: The reviewer is mostly fighting his own shadow. When I contrast the truth of experience with a dream, it never occurs to him that the question here concerns only the familiar somnio objective sumto (“a dream taken objectively”) of *Wolffian* philosophy, which is merely formal. It has nothing to do with the distinction between sleeping and waking, nor can it have in a transcendental philosophy. Moreover, he calls my deduction of the categories and the table of principles of the understanding “commonly known principles of logic and ontology, expressed in an idealistic manner.” The reader need only consult these Prolegomena on this point to be convinced that a more wretched judgment, or even a more historically incorrect one, could not possibly be delivered.