Prolegomena to any future metaphysics that will be able to come forward as science

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^a This table of contents has been constructed from the section titles. The original editions did not contain a table of contents.

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These prolegomena are not for the use of apprentices, but of future teachers, and indeed are not to help them to organize the presentation of an already existing science, but to discover this science itself for the first time.

Preface^a

There are scholars for whom the history of philosophy (ancient as well as modern) is itself their philosophy; the present prolegomena have not been written for them. They must wait until those who endeavor to draw from the wellsprings of reason itself have finished their business, and then it will be their turn to bring news of these events to the world. Otherwise, in their opinion nothing can be said that has not already been said before; and in fact this opinion can stand for all time as an infallible prediction, for since the human understanding has wandered over countless subjects in various ways through many centuries, it can hardly fail that for anything new something old should be found that has some similarity to it.

My intention is to convince all of those who find it worthwhile to occupy themselves with metaphysics that it is unavoidably necessary to suspend their work for the present, to consider all that has happened until now as if it had not happened, and before all else to pose the question: "whether such a thing as metaphysics is even possible at all."

If metaphysics is a science, why is it that it cannot, like other sciences, attain universal and lasting acclaim? If it is not, how does it happen that, under the pretense of a science it incessantly shows off, and strings along the human understanding with hopes that never dim but are never 4: 256 fulfilled? Whether, therefore, we demonstrate our knowledge or our ignorance, for once we must arrive at something certain concerning the nature of this self-proclaimed science; for things cannot possibly remain on their present footing. It seems almost laughable that, while every other science makes continuous progress, metaphysics, which desires to be wisdom itself, and which everyone consults as an oracle, perpetually turns round on the same spot without coming a step further. Furthermore, it has lost a great many of its adherents, and one does not find that those who feel strong enough to shine in other sciences wish to risk their reputations in this one, where anyone, usually ignorant in all other things, lays claim to a decisive opinion, since in this region there are

^a Section heading supplied, with Vorländer, by analogy with Vorrede in A/B.

in fact still no reliable weights and measures with which to distinguish profundity from shallow babble.

It is, after all, not completely unheard of, after long cultivation of a science, that in considering with wonder how much progress has been made someone should finally allow the question to arise: whether and how such a science is possible at all. For human reason is so keen on building that more than once it has previously erected a tower, but has afterwards torn it down again in order to see how well constituted its foundation may have been. It is never too late to grow reasonable and wise; but if the insight comes late, it is always harder to bring it into

To ask whether a science might in fact be possible assumes a doubt about its actuality." Such a doubt, though, offends everyone whose entire belongings may perhaps consist in this supposed jewel; hence he who allows this doubt to develop had better prepare for opposition from all sides. Some, with their metaphysical compendia in hand, will look down on him with scorn, in proud consciousness of their ancient, and hence ostensibly legitimate, possession; others, who nowhere see anything that is not similar to something they have seen somewhere else before, will not understand him; and for a time everything will remain as if nothing at all had happened that might yield fear or hope of an impending change.

Nevertheless I venture to predict that the reader of these prolegomena who thinks for himself will not only come to doubt his previous science, but subsequently will be fully convinced that there can be no such science unless the requirements expressed here, on which its possibility rests, are met, and, as this has never yet been done, that there is as yet no metaphysics at all. Since, however, the demand for it can never be exhausted,* because the interest of human reason in general is much too intimately interwoven with it, the reader will admit that a complete reform or rather a rebirth of metaphysics, according to a plan completely unknown before now, is inevitably approaching, however much it may be resisted in the meantime.1

Since the Essays of Locke2 and Leibniz,3 or rather since the rise of metaphysics as far as the history of it reaches, no event has occurred that could have been more decisive with respect to the fate of this science than the attack made upon it by David Hume. 4 He brought no light to this kind of knowledge, but he certainly struck a spark from which a

light could well have been kindled, if it had hit some welcoming tinder whose glow had then been carefully kept going and made to grow.

Hume started mainly from a single but important concept in metaphysics, namely, that of the connectiona of cause and effect (and of course also its derivative concepts, of force and action, etc.), and called upon reason, which pretends to have generated this concept in her womb, to give him an account of by what right she thinks: that something could be so constituted that, if it is posited, something else necessarily must thereby be posited as well; for that is what the concept of cause says. He undisputably proved that it is wholly impossible for reason to think such a connection a priori and from concepts, because this connection contains necessity; and it is simply not to be seen how it could be, that because something is, something else necessarily must also be, and therefore how the concept of such a connection could be introduced a priori. From this he concluded that reason completely and fully deceives herself with this concept, falsely taking it for her own child, when it is really nothing but a bastard of the imagination, which, impregnated by 4: 258 experience, and having brought certain representations under the law of association, passes off the resulting subjective necessity (i.e., habit) for an objective necessity (from insight).5 From which he concluded that reason has no power at all to think such connections, not even merely in general, because its concepts would then be bare fictions, and all of its cognitions allegedly established a priori would be nothing but falsely marked ordinary experiences; which is as much as to say that there is no metaphysics at all, and cannot be any.*

As premature and erroneous as his conclusion was, nevertheless it was at least founded on inquiry, and this inquiry was of sufficient value, that the best minds of his time might have come together to solve (more happily if possible) the problem in the sense in which he presented it, from which a complete reform of the science must soon have arisen.

^{*} Rusticus exspectat, dum defluat amnis, at ille Labitur et labetur in omne volubilis aevum. Horace.^b

b "A rustic waits for the river to flow away, but it flows on, and will so flow for all eternity." Horace, Epistles, I.ii.42-3.

^c Erkenntniss

^{*} All the same, Hume named this destructive philosophy itself metaphysics and placed great value on it. "Metaphysics and morals," he said (Essays, 4th pt., p. 214, German translation), "are the most important branches of science; mathematics and natural science are not worth half so much."6 The acute man was, however, looking only to the negative benefit that curbing the excessive claims of speculative reason would have, in completely abolishing so many endless and continual conflicts that perplex the human species; he meanwhile lost sight of the positive harm that results if reason is deprived of the most important vistas, from which alone it can stake out for the will the highest goal of all the will's endeavors.

⁴ Verknüpfung

b Verbindung

^c Verknüpfung

But fate, ever ill-disposed toward metaphysics, would have it that Hume was" understood by no one. One cannot, without feeling a certain pain, behold how utterly and completely his opponents, Reid. Oswald, Beattie, and finally Priestley, 7 missed the point of his problem, and misjudged his hints for improvement - constantly taking for granted just what he doubted, and, conversely, proving with vehemence and, more often than not, with great insolence exactly what it had never entered his mind to doubt - so that everything remained in its old condition, as if nothing had happened. The question was not, whether the concept of cause is right, useful, and, with respect to all cognition of nature, indispensable, for this Hume had never put in doubt; it was rather whether it is thought through reason a priori, and in this way has an inner truth independent of all experience, and therefore also a much more widely extended use which is not limited merely to objects of experience: regarding this Hume awaited enlightenment.^b The discussion was only about the origin of this concept, not about its indispensability in use; if the former were only discovered, the conditions of its use and the sphere in which it can be valid would already be given.

In order to do justice to the problem, however, the opponents of this celebrated man would have had to penetrate very deeply into the nature of reason so far as it is occupied solely with pure thought, something that did not suit them. They therefore found a more expedient means to be obstinate without any insight, namely, the appeal to ordinary common sense.^c It is in fact a great gift from heaven to possess right (or, as it has recently been called, plain) common sense. But it must be proven through deeds, by the considered and reasonable things one thinks and says, and not by appealing to it as an oracle when one knows of nothing clever to advance in one's defense. To appeal to ordinary common sense when insight and science run short, and not before, is one of the subtle discoveries of recent times, whereby the dullest windbag can confidently take on the most profound thinker and hold his own with him. So long as a small residue of insight remains, however, one would do well to avoid resorting to this emergency help. And seen in the light of day, this appeal is nothing other than a call to the judgment of the multitude; applause at which the philosopher blushes, but at which the popular wag becomes triumphant and defiant. I should think, however, that Hume could lay just as much claim to sound common sense^d as Beattie, and on top of this to something that the latter certainly did not possess, namely, a critical reason, which keeps ordinary common sense in check, so that

^a Reading wurde for würde, with Ak.

b Eröffnung

^c gemeinen Menschenverstand

^d gesunden Verstand

it doesn't lose itself in speculations, or, if these are the sole topic of discussion, doesn't want to decide anything, since it doesn't understand the justification for its own principles; for only so will it remain sound common sense. Hammer and chisel are perfectly fine for working raw lumber, but for copperplate one must use an etching needle. Likewise, sound common sense and speculative understanding are both useful, but each in its own way; the one, when it is a matter of judgments that find their immediate application in experience, the other, however, when judgments are to be made in a universal mode, out of mere concepts, as in metaphysics, where what calls itself (but often *per antiphrasin*)^a sound common sense has no judgment whatsoever.

I freely admit that the remembrance of *David Hume* was the very thing that many years ago first interrupted my dogmatic slumber¹⁰ and gave a completely different direction to my researches in the field of speculative philosophy. I was very far from listening to him with respect to his conclusions, which arose solely because he did not completely set out his problem but only touched on a part of it, which, without the whole being taken into account, can provide no enlightenment.^b If we begin from a well-grounded though undeveloped thought that another bequeaths us, then we can well hope, by continued reflection, to take it further than could the sagacious man whom one has to thank for the first spark of this light.

So I tried first whether *Hume's* objection might not be presented in a general manner, and I soon found that the concept of the connection of cause and effect is far from being the only concept through which the understanding thinks connections of things a priori; rather, metaphysics consists wholly of such concepts. I sought to ascertain their number, and once I had successfully attained this in the way I wished, namely from a single principle, I proceeded to the deduction of these concepts, from which I henceforth became assured that they were not, as Hume had feared, derived from experience, but had arisen from the pure understanding. This deduction, which appeared impossible to my sagacious predecessor, and which had never even occurred to anyone but him, even though everyone confidently made use of these concepts without asking what their objective validity is based on - this deduction, I say, was the most difficult thing that could ever be undertaken on behalf of metaphysics; and the worst thing about it is that metaphysics, as much of it as might be present anywhere at all, could not give me the slightest help with this, because this very deduction must first settle the possibility of a metaphysics. As I had now succeeded in the solution of the Humean problem not only in a single case but with respect to the entire faculty of

^b Auskunft

[&]quot;by way of expression through the opposite"

pure reason, I could therefore take sure, if still always slow, steps toward finally determining, completely and according to universal principles, the entire extent of pure reason with regard to its boundaries as well as its content, which was indeed the very thing that metaphysics requires in order to build its system according to a sure plan.

But I fear that the elaboration of the Humean problem in its greatest possible amplification (namely, the Critique of Pure Reason) may well fare just as the problem itself fared when it was first posed. It will be judged incorrectly, because it is not understood; it will not be understood, because people will be inclined just to skim through the book, but not to think through it; and they will not want to expend this effort on it, because the work is dry, because it is obscure, because it opposes all familiar concepts and is long-winded as well. Now I admit that I do not expect to hear complaints from a philosopher regarding lack of popularity, entertainment, and ease, when the matter concerns the existence of highly prized knowledge that is indispensable to humanity, knowledge that cannot be constituted except according to the strictest rules of scholarly exactitude, and to which popularity may indeed come with time but can never be there at the start. But with regard to a certain obscurity - arising in part from the expansiveness of the plan, which makes it difficult to survey the main points upon which the investigation depends – in this respect the complaint is just; and I will redress it through the present Prolegomena.^a

The previous work, which presents the faculty of pure reason in its entire extent and boundaries, thereby always remains the foundation to which the *Prolegomena* refer only as preparatory exercises; for this *Critique* must stand forth as science, systematic and complete to its smallest parts, before one can think of permitting metaphysics to come forward, or even of forming only a distant hope for metaphysics.

We have long been accustomed to seeing old, threadbare cognitions newly trimmed by being taken from their previous connections and fitted out by someone in a systematic garb of his own preferred cut, but under new titles; and most readers will beforehand expect nothing else from the *Critique*. Yet these *Prolegomena* will bring them to understand that there exists a completely new science, of which no one had previously formed so much as the thought, of which even the bare idea was unknown, and for which nothing from all that has been provided before now could be used except the hint that *Hume's* doubts had been able to give; Hume also foresaw nothing of any such possible formal science, but deposited his ship on the beach (of skepticism) for safekeeping, II where it could then lie and rot, whereas it is important to me to give it a pilot, who, provided with complete sea-charts and a compass, might safely navigate the ship wherever seems good to him,

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following sound principles of the helmsman's art drawn from a knowledge of the globe.

To approach a new science – one that is entirely isolated and is the only one of its kind – with the prejudice that it can be judged by means of one's putative cognitions already otherwise obtained, even though it is precisely the reality of those that must first be completely called into question, results only in believing that one sees everywhere something that was already otherwise known, because the expressions perhaps sound similar; except that everything must seem to be extremely deformed, contradictory, and nonsensical, because one does not thereby make the author's thoughts fundamental, but always simply one's own, made natural through long habit. Yet the copiousness of the work, insofar as it is rooted in the science itself and not in the presentation, and the inevitable dryness and scholastic exactitude that result, are qualities that indeed may be extremely advantageous to the subject matter itself, but must of course be detrimental to the book itself.

It is not given to everyone to write so subtly and yet also so alluringly as *David Hume*, or so profoundly and at the same time so elegantly as *Moses Mendelssohn*;¹² but I could well have given my presentation popularity (as I flatter myself) if all I had wanted to do was to sketch a plan and to commend its execution to others, and had I not taken to heart the wellbeing of the science that kept me occupied for so long; for after all it requires great perseverance and also indeed not a little self-denial to set aside the enticement of an earlier, favorable reception for the expectation of an admittedly later, but lasting approval.

To make plans is most often a presumptuous, boastful mental preoccupation, through which one presents the appearance of creative genius, in that one requires what one cannot provide oneself, censures what one cannot do better, and proposes what one does not know how to attain oneself - though merely for a sound plan for a general critique of reason, somewhat more than might be expected would already have been required if it were not, as is usual, to be merely a recitation of idle wishes. But pure reason is such an isolated domain, within itself so thoroughly connected, that no part of it can be encroached upon without disturbing all the rest, nor adjusted without having previously determined for each part its place and its influence on the others; for, since there is nothing outside of it that could correct our judgment within it, the validity and use of each part depends on the relation in which it stands to the others within reason itself, and, as with the structure of an organized body, the purpose of any member can be derived only from the complete concept of the whole. That is why it can be said of such a critique, that it is never trustworthy unless it is entirely complete down to the least elements of

⁴ Emphasis in original.

a Reading er for es, with Ak.

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pure reason, and that in the domain of this faculty one must determine and settle either *all* or *nothing*.

But although a mere plan that might precede the *Critique of Pure Reason* would be unintelligible, undependable, and useless, it is by contrast all the more useful if it comes after. For one will thereby be put in the position to survey the whole, to test one by one the main points at issue in this science, and to arrange many things in the exposition better than could be done in the first execution of the work.

Here then is such a plan subsequent to the completed work, which now can be laid out according to the analytic method," whereas the work itself absolutely had to be composed according to the synthetic method, b so that the science might present all of its articulations, as the structural organization of a quite peculiar faculty of cognition, in their natural connection.¹³ Whosoever finds this plan itself, which I send ahead as prolegomena for any future metaphysics, still obscure, may consider that it simply is not necessary for everyone to study metaphysics, that there are some talents that proceed perfectly well in fundamental and even deep sciences that are closer to intuition, but that will not succeed in the investigation of purely abstract concepts, and that in such a case one should apply one's mental gifts to another object; that, however, whosoever undertakes to judge or indeed to construct a metaphysics, must thoroughly satisfy the challenge made here, whether it happens that they accept my solution, or fundamentally reject it and replace it with another - for they cannot dismiss it; and finally, that the much decried obscurity (a familiar cloaking for one's own indolence or dimwittedness) has its use as well, since everybody, who with respect to all other sciences observes a wary silence, speaks masterfully, and boldly passes judgment in questions of metaphysics, because here to be sure their ignorance does not stand out clearly in relation to the science of others, but in relation to genuine critical principles, which therefore can be praised:

Ignavum, fucos, pecus a praesepibus arcent. Virg.c

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Preamble on the Distinguishing Feature of All Metaphysical Cognition

§1 On the sources of metaphysics

If one wishes to present a body of cognition as *science*, at then one must first be able to determine precisely the differentia it has in common with no other science, and which is therefore its *distinguishing feature*; otherwise the boundaries of all the sciences run together, and none of them can be dealt with thoroughly according to its own nature.

Whether this distinguishing feature consists in a difference of the *object* or the *source of cognition*, or even of the *type of cognition*, or several if not all of these things together, the idea of the possible science and its territory depends first of all upon it.

First, concerning the *sources* of metaphysical cognition, it already lies in the concept of metaphysics that they cannot be empirical. The principles^b of such cognition (which include not only its fundamental propositions,^c but also its fundamental concepts) must therefore never be taken from experience; for the cognition is supposed to be not physical but metaphysical, i.e., lying beyond experience. Therefore it will be based upon neither outer experience, which constitutes the source of physics proper, nor inner, which provides the foundation of empirical psychology. It is therefore cognition *a priori*, or from pure understanding and pure reason.

In this, however, there would be nothing to differentiate it from pure mathematics; it must therefore be denominated *pure philosophical cognition*; but concerning the meaning of this expression I refer to the *Critique of Pure Reason*, pp. 712 f., ¹⁴ where the distinction between these two types of use of reason has been presented clearly and sufficiently. – So much on the sources of metaphysical cognition. ¹⁵

^a analytischer Methode

^b synthetischer Lehrart

^c "They protect the hives from the drones, an idle bunch." Virgil, Georgica, IV.168.

a eine Erkenntniss als Wissenschaft

^b Principien

Grundsätze

On the type 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*, as required by the distinguishing feature of its sources. But judgments may have any origin whatsoever, or be constituted in whatever manner according to their logical form, and yet there is nonetheless a distinction between them according to their content, by dint of which they are either merely *explicative* and add nothing to the content of the cognition, or *ampliative* and augment the given cognition; the first may be called *analytic* judgments, the second *synthetic*.

Analytic judgments say nothing in the predicate except what was actually thought already in the concept of the subject, though not so clearly nor with the same consciousness. If I say: All bodies are extended, then I have not in the least amplified my concept of body, but have merely resolved it, since extension, although not explicitly said of the former concept prior to the judgment, nevertheless was actually thought of it; the judgment is therefore analytic. By contrast, the proposition: Some bodies are heavy, contains something in the predicate that is not actually thought in the general concept of body; it therefore augments my cognition, since it adds something to my concept, and must therefore be called a synthetic judgment.¹⁶

(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 *a priori* cognitions, whether the concepts that serve for their material be empirical or not. For since the predicate of an affirmative analytic judgment is already thought beforehand in the concept of the subject, it cannot be denied of that subject without contradiction; exactly so is its opposite necessarily denied of the subject in an analytic, but negative, judgment, and indeed also according to the principle of contradiction. So it stands with the propositions: Every body is extended, and: No body is unextended (simple).

For that reason all analytic propositions are still *a priori* judgments even if their concepts are empirical, as in: Gold is a yellow metal; for in order to know this, I need no further experience outside my concept of gold, which includes that this body is yellow and a metal; for this

constitutes my very concept, and I did not have to do anything except analyze it, without looking beyond it to something else. 17

(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 a priori certain and that arise from pure understanding and reason. Both however agree in this, that they can by no means arise solely from the principle^a of analysis, namely the principle of contradiction; they demand yet a completely different principle,^b though they always must be derived from some fundamental proposition,^c whichever it may be, in accordance with the principle of contradiction; for nothing can run counter to this principle, even though everything cannot be derived from it. I shall first classify the synthetic judgments.

I. Judgments of experience are always synthetic. For it would be absurd to base an analytic judgment on experience, since I do not at all need to go beyond my concept in order to formulate the judgment and therefore have no need for any testimony from experience. That a body is extended, is a proposition that stands certain a priori, and not a judgment of experience. For before I go to experience, I have all the conditions for my judgment already in the concept, from which I merely extract the predicate in accordance with the principle of contradiction, and by this means can simultaneously become conscious of the necessity of the judgment, which experience could never teach me.

2. Mathematical judgments are one and all synthetic. This proposition appears to have completely escaped the observations of analysts of human reason up to the present, and indeed to be directly opposed to all of their conjectures, although it is incontrovertibly certain and very important in its consequences. Because they found that the inferences of the mathematicians all proceed in accordance with the principle of contradiction (which, by nature, is required of any apodictic certainty), they were persuaded that even the fundamental propositions were known through the principle of contradiction, in which they were very mistaken; for a synthetic proposition can of course be discerned in accordance with the principle of contradiction, but only insofar as another synthetic propositions is presupposed from which the first can be deduced, never however in itself.

a Princip

a Grundsatze

^b Princip

^c Grundsatze

First of all it must be observed: that properly mathematical propositions are always *a priori* and not empirical judgments, because they carry necessity with them, which cannot be taken from experience. But if this will not be granted me, very well, I will restrict my proposition to *pure mathematics*, the concept of which already conveys that it contains not empirical but only pure cognition *a priori*.

One might well at first think: that the proposition 7 + 5 = 12 is a purely analytical proposition that follows from the concept of a sum of seven and five according to the principle of contradiction. However, upon closer inspection, one finds that the concept of the sum of 7 and 5 contains nothing further than the unification of the two numbers into one, through which by no means is thought what this single number may be that combines the two. The concept of twelve is in no way already thought because I merely think to myself this unification of seven and five, and I may analyze my concept of such a possible sum for as long as may be, still I will not meet with twelve therein. One must go beyond these concepts, in making use of the intuition that corresponds to one of the two, such as one's five fingers, or (like Segner in his arithmetic)18 five points, and in that manner adding the units of the five given in intuition step by step to the concept of seven. One therefore truly amplifies one's concept through this proposition 7 + 5 = 12 and adds to the first concept a new one that was not thought in it; that is, an arithmetical proposition is always synthetic, which can be seen all the more plainly in the case of somewhat larger numbers, for it is then clearly evident that, though we may turn and twist our concept as we like, we could never find the sum through the mere analysis of our concepts, without making use of 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 the straight contains nothing of magnitude, but only a quality. The concept of the shortest is therefore wholly an addition and cannot be extracted by any analysis from the concept of the straight line. Intuition must therefore be made use of here, by means of which alone the synthesis is possible.

Some other fundamental propositions that geometers presuppose are indeed actually analytic and rest on the principle of contradiction; however, they serve only, like identical propositions, as links in the chain of method and not as^b principles: e.g., a = a, the whole is equal to itself, or (a + b) > a, i.e., the whole is greater than its part. And indeed even these, although they are valid from concepts alone,

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are admitted into mathematics only because they can be exhibited in intuition.^a

It is merely ambiguity of expression which makes us commonly believe here that the predicate of such apodictic judgments already lies in our concept and that the judgment is therefore analytic. Namely, we are required to add in thought a particular predicate to a given concept, and this necessity is already attached to the concepts. But the question is not, what we are required to add in thought to a given concept, but what we actually think in it, even if only obscurely, and then it becomes evident that the predicate attaches to such concepts indeed necessarily, though not immediately, but rather through an intuition that has to be added.

The essential feature of pure *mathematical* cognition, differentiating it from all other *a priori* cognition, is that it must throughout proceed *not* from concepts, but always and only through the construction of concepts (Critique, p. 713). Because pure mathematical cognition, in its propositions, must therefore go beyond the concept to that which is contained in the intuition corresponding to it, its propositions can and must never arise through the analysis of concepts, i.e., analytically, and so are one and all synthetic. ²⁰

I cannot, however, refrain from noting the damage that neglect of this otherwise seemingly insignificant and unimportant observation has brought upon philosophy. Hume, when he felt the call, worthy of a philosopher, to cast his gaze over the entire field of pure a priori cognition, in which the human understanding claims such vast holdings, inadvertently lopped off a whole (and indeed the most considerable) province of the same, namely pure mathematics, by imagining that the nature and so to speak the legal constitution of this province rested on completely different principles, namely solely on the principle of contradiction; and although he had by no means made a classification of propositions so formally and generally, or with such nomenclature, as I have here, it was nonetheless just as if he had said: Pure mathematics contains only analytic propositions, but metaphysics contains synthetic propositions a priori. Now he erred severely in this, and this error had decisively damaging consequences for his entire conception. For had he not done this, he would have expanded his question about the origin of our synthetic judgments far beyond his metaphysical concept of causality and extended

^a Grösse

b Reading als for aus, with Ak (and B 17).

⁴ Paragraph break added to reflect continuity of the new paragraph with the three paragraphs prior to the preceding two sentences.

b soller

^c Reading ihm for ihnen, with Ak (and B 17).

d The following five paragraphs are taken from §4 in accordance with the Vaihinger-Sitzler galley-switching thesis (see Translator's Introduction).

it also to the possibility of *a priori* mathematics; for he would have had to accept mathematics as synthetic as well. But then he would by no means have been able to found his metaphysical propositions on mere experience, for otherwise he would have had to subject the axioms of pure mathematics to experience as well, which he was much too reasonable to do.²¹ The good company in which metaphysics would then have come to be situated would have secured it against the danger of scornful mistreatment; for the blows that were intended for the latter would have had to strike the former as well, which was not his intention, and could not have been; and so the acute man would have been drawn into reflections which must have been similar to those with which we are now occupied, but which would have gained infinitely from his inimitably fine presentation.²²

3.4 Properly metaphysical judgments are one and all synthetic. Judgments belonging to metaphysics must be distinguished from properly metaphysical judgments. Very many among the former are analytic, but they merely provide the means to metaphysical judgments, toward which the aim of the science is completely directed, and which are always synthetic. For if concepts belong to metaphysics, e.g., that of substance, then necessarily the judgments arising from their mere analysis belong to metaphysics as well, e.g., substance is that which exists only as subject, etc., and through several such analytic judgments we try to approach the definition of those concepts. Since, however, the analysis of a pure concept of the understanding (such as metaphysics contains) does not proceed in a different manner from the analysis of any other, even empirical, concept which does not belong to metaphysics (e.g., air is an elastic fluid, the elasticity of which is not lost with any known degree of cold), therefore the concept may indeed be properly metaphysical, but not the analytic judgment; for this science possesses something special and proper to it in the generation of its a priori cognitions, which generation must therefore be distinguished from what this science has in common with all other cognitions of the understanding; thus, e.g., the proposition: All that is substance in things persists, is a synthetic and properly metaphysical proposition.

If one has previously assembled, according to fixed principles, the *a priori* concepts that constitute the material of metaphysics and its tools, then the analysis of these concepts is of great value; it can even be presented apart from all the synthetic propositions that constitute metaphysics itself, as a special part (as it were a *philosophia definitiva*)²³ containing nothing but analytic propositions belonging to metaphysics. For in fact such analyses do not have much use anywhere except in metaphysics,

⁴ The numeral three is added in accordance with the Vaihinger-Sitzler thesis.

i.e., with a view toward the synthetic propositions that are to be generated from such previously analyzed concepts.

The conclusion of this section is therefore: that metaphysics properly has to do with synthetic propositions *a priori*, and these alone constitute its aim, for which it indeed requires many analyses of its concepts (therefore many analytic judgments), in which analyses, though, the procedure is no different from that in any other type of cognition when one seeks simply to make its concepts clear through analysis. But the *generation* of cognition *a priori* in accordance with both intuition and concepts, ultimately of synthetic propositions *a priori* as well, and specifically in philosophical cognition, forms^a the essential content of metaphysics.

Note on the general division of judgments into analytic and synthetic

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This division is indispensable with regard to the critique of human understanding, and therefore deserves to be classical in it; other than that I don't know that it has much utility anywhere else. And in this I find the reason why dogmatic philosophers (who always sought the sources of metaphysical judgments only in metaphysics itself, and not outside it in the pure laws of reason in general) neglected this division, which appears to come forward of itself, and, like the famous Wolf, or the acute Baumgarten following in his footsteps, could try to find the proof of the principle of sufficient reason, which obviously is synthetic, in the principle of contradiction.24 By contrast I find a hint of this division already in Locke's essays on human understanding. For in Book IV, Chapter III, §9 f., after he had already discussed the various connections of representations^b in judgments and the sources of the connections, of which he located the one in identity or contradiction (analytic judgments) but the other in the existence of representations in a subject (synthetic judgments), he then acknowledges in §10 that our cognition (a priori) of these last is very constricted and almost nothing at all.25 But there is so little that is definite and reduced to rules in what he says about this type of cognition, that it is no wonder if no one, and in particular not even Hume, was prompted by it to contemplate propositions of this type.26 For such general yet nonetheless definite principles are not easily learned from others who have only had them floating obscurely before them. One must first have

^a Reading macht for machen, with Vorländer.

b Vorstellungen, translated as "representations" here as elsewhere, even though corresponding to Locke's word "ideas." German translators of philosophy at this time tended to avoid the loan word "Idee," usually rendering the English "idea" as Begriff (on which, see Poley's translation of the Essay, his n. 6, on p. 8).

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come to them oneself through one's own reflection, after which one also finds them elsewhere, where one certainly would not have found them before, because the authors did not even know themselves that their own remarks were grounded on such an idea. Those who never think for themselves in this way nevertheless possess the quick-sightedness to spy everything, after it has been shown to them, in what has already been said elsewhere, where no one at all could see it before.

g-

General Question of the Prolegomena

Is metaphysics possible at all?

If a metaphysics that could assert itself as science were actual, if one could say: here is metaphysics, you need only to learn it, and it will convince you of its truth irresistibly and immutably, then this question would be unnecessary, and there would remain only that question which would pertain more to a test of our acuteness than to a proof of the existence of the subject matter itself, namely: how it is possible, and how reason should set about attaining it. Now it has not gone so well for human reason in this case. One can point to no single book, as for instance one presents a Euclid, and say: this is metaphysics, here you will find the highest aim of this science, knowledge^a of a supreme being and a future life, proven from principles of pure reason. For one can indeed show us many propositions that are apodictically certain and have never been disputed; but they are one and all analytic and pertain more to the materials and implements of metaphysics than to the expansion of knowledge, which after all ought to be our real aim for it. (§2c) But although you present synthetic propositions as well (e.g., the principle of sufficient reason), which you have never proven from bare reason and consequently a priori, as was indeed your obligation, and which are gladly ceded to you all the same: then if you want to use them toward your main goal, you still fall into assertions so illicit and precarious that one metaphysics has always contradicted the other, either in regard to the assertions themselves or their proofs, and thereby metaphysics has itself destroyed its claim to lasting approbation. The very attempts to bring such a science into existence were without doubt the original cause of the skepticism that arose so early,27 a mode of thinking in which reason moves against itself with such violence that it never could have arisen except in complete despair as regards satisfaction of reason's most important aims. For long before we began to question nature methodically, we questioned just our isolated reason, which already was practiced to a certain extent through common experience: for reason surely is present to us always, but laws of nature must normally be sought out painstakingly; and so metaphysics

4: 27.2

^a Erkenntniss

was floating at the top like foam, though in such a way that as soon as what had been drawn off had dissolved, more showed itself on the surface, which some always gathered up eagerly, while others, instead of seeking the cause of this phenomenon in the depths, thought themselves wise in mocking the fruitless toilof the former.

Weary therefore of dogmatism, which teaches us nothing, and also of skepticism, which promises us absolutely nothing at all, not even the tranquility of a permitted ignorance; summoned by the importance of the knowledge^b that we need, and made mistrustful, through long experience, with respect to any knowledge that we believe we possess or that offers itself to us under the title of pure reason, there remains left for us but one critical question, the answer to which can regulate our future conduct: Is metaphysics possible at all? But this question must not be answered by skeptical objections to particular assertions of an actual metaphysics (for at present we still allow none to be valid), but out of the still problematic concept of such a science.

In the Critique of Pure Reason I worked on this question synthetically, d namely by inquiring within pure reason itself, and seeking to determine within this source both the elements and the laws of its pure use, according to principles. This work is difficult and requires a resolute reader to think himself little by little into a system that takes no foundation as given except reason itself, and that therefore tries to develop cognition out of its original seeds without relying on any fact whatever. Prolegomenae should by contrast be preparatory exercises; they ought more to indicate what needs to be done in order to bring a science into existence if possible, than to present the science itself. They must therefore rely on something already known to be dependable, from which we can go forward with confidence and ascend to the sources, which are not yet known, and whose discovery not only will explain what is known already, but will also exhibit an area with many cognitions that all arise from these same sources. The methodological procedure of prolegomena, and especially of those that are to prepare for a future metaphysics, will therefore be analytic.

Fortunately, it happens that, even though we cannot assume that metaphysics as science is *actual*, we can confidently say that some pure synthetic cognition *a priori* is actual and given, namely, *pure mathematics*

and pure natural science; for both contain propositions that are fully acknowledged, some as apodictically certain through bare reason, some from universal agreement with experience (though these are still recognized as independent of experience). We have therefore some at least uncontested synthetic cognition a priori, and we do not need to ask whether it is possible (for it is actual), but only: how it is possible, in order to be able to derive, from the principle of the possibility of the given cognition, the possibility of all other synthetic cognition a priori.

 $^{^4}$ Here followed the five paragraphs that have been placed in $\S 2$ (pp. 65–7), following the Vaihinger–Sitzler thesis.

^b Erkenntniss

^c Emphasis in original.

d Emphasis added.

Emphasis in original.

Prolegomena General Question How is cognition from pure reason possible?

§ 5

We have seen above the vast difference between analytic and synthetic judgments. The possibility of analytic propositions could be comprehended very easily; for it is founded solely upon the principle of contradiction. The possibility of synthetic propositions *a posteriori*, i.e., of such as are drawn from experience, also requires no special explanation; for experience itself is nothing other than a continual conjoining (synthesis) of perceptions. There remain for us therefore only synthetic propositions *a priori*, whose possibility must be sought or investigated, since it must rest on principles other than the principle of contradiction.

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Here, however, we do not need first to seek the *possibility* of such propositions, i.e., to ask whether they are possible. For there are plenty of them actually given, and indeed with indisputable certainty, and since the method we are now following is to be analytic, we will consequently start from the position: that such synthetic but pure rational cognition is actual; but we must nonetheless next *investigate* the ground of this possibility, and ask: *how* this cognition is possible, so that we put ourselves in a position to determine, from the principles of its possibility, the conditions of its use and the extent and boundaries of the same.²⁸ Expressed with scholastic precision, the exact problem on which everything hinges is therefore:

How are synthetic propositions a priori possible?

For the sake of popularity I have expressed this problem somewhat differently above, namely as a question about cognition from pure reason which I could well have done on this occasion without disadvantage for the desired insight; for, since we assuredly have to do here only with metaphysics and its sources, it will, I hope, always be kept in mind, following the earlier reminders, that when we here speak of cognition from

pure reason, the discussion is never about analytic cognition, but only synthetic.*

Whether metaphysics is to stand or fall, and hence its existence, now depends entirely on the solving of this problem. Anyone may present his contentions on the matter with ever so great a likelihood, piling conclusion on conclusion to the point of suffocation; if he has not been able beforehand to answer this question satisfactorily then I have the right to say: it is all empty, baseless philosophy and false wisdom. You speak through pure reason and pretend as it were to create *a priori* cognitions, not only by analyzing given concepts, but by alleging new connections that are not based on the principle of contradiction and that you nonetheless presume to understand completely independently of all experience; now how do you come to this, and how will you justify such pretenses? You cannot be allowed to call on the concurrence of general common sense;^b for that is a witness whose standing is based solely on public rumor. *Quodcunque ostendis mibi sic, incredulus odi.*^c *Horat.*

As indispensable as it is, however, to answer this question, at the same time it is just as difficult; and although the principal reason why the answer has not long since been sought rests in the fact that it had occurred to no one that such a thing could be asked, nonetheless a second reason is that a satisfactory answer to this one question requires more assiduous, deeper, and more painstaking reflection than the most prolix work of metaphysics ever did, which promised its author immortality on its first appearance. Also, every perceptive reader, if he carefully ponders what this problem demands, being frightened at first by its difficulty, is bound to consider it insoluble and, if such pure synthetic cognitions a

* When knowledge" moves forward little by little, it cannot be helped that certain expressions which have already become classical, having been present from the very infancy of science, subsequently should be found insufficient and badly suited, and that a certain newer and more apt usage should fall into danger of being confused with the old one. The analytic method, insofar as it is opposed to the synthetic, is something completely different from a collection of analytic propositions; it signifies only that one proceeds from that which is sought as if it were given, and ascends to the conditions under which alone it is possible. In this method one often uses nothing but synthetic propositions, as mathematical analysis exemplifies, and it might better be called the *regressive* method to distinguish it from the synthetic or *progressive* method. Again the name analytic is also found as a principal division of logic, and there it is the logic of truth and is opposed to dialectic, without actually looking to see whether the cognitions belonging to that logic are analytic or synthetic.

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^a Erkenntniss

b allgemeinen Menschenvernunft

[&]quot;Whatsoever you show me thusly, unbelieving, I hate it." Horace, Epistles, II.3.188.

priori were not actual, altogether impossible; which is what actually befell David Hume, although he was far from conceiving the question in such universality as it is here, and as it must be if the reply is to be decisive for all metaphysics. For how is it possible, asked the acute man, that when I am given one concept I can go beyond it and connect another one to it that is not contained in it, and can indeed do so, as though the latter necessarily belonged to the former? Only experience can provide us with such connections (so he concluded from this difficulty, which he took for an impossibility), and all of this supposed necessity – or, what is the same – this cognition taken for a priori, is nothing but a long-standing habit of finding something to be true and consequently of taking subjective necessity to be objective.

If the reader complains about the toil and trouble that I shall give him with the solution to this problem, he need only make the attempt to solve it more easily himself. Perhaps he will then feel himself obliged to the one who has taken on a task of such profound inquiry for him, and will rather allow himself to express some amazement over the ease with which the solution could still be given, considering the nature of the matter; for indeed it cost years of toil to solve this problem in its full universality^a (as this word is understood by the mathematicians, namely, as sufficient for all cases), and also ultimately to be able to present it in analytic form, as the reader will find it here.

All metaphysicians are therefore solemnly and lawfully suspended from their occupations until such a time as they shall have satisfactorily answered the question: How are synthetic cognitions a priori possible? For in this answer alone consists the credential which they must present if they have something to advance to us in the name of pure reason; in default of which, however, they can expect only that reasonable persons, who have been deceived so often already, will reject their offerings without any further investigation.

If, on the contrary, they want to put forth their occupation not as *science*, but as an *art* of beneficial persuasions accommodated to general common sense, then they cannot justly be barred from this trade. They will then use the modest language of reasonable belief, they will acknowledge that it is not allowed them even once *to guess*, let alone to *know*, be something about that which lies beyond the boundaries of all possible experience, but only *to assume* something about it (not for speculative use, for they must renounce that, but solely for practical use), as is possible and even indispensable for the guidance of the understanding and will in life. Only thus will they be able to call themselves useful and wise men, the more so, the more they renounce the name of metaphysicians;

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for metaphysicians want to be speculative philosophers, and since one cannot aim for vapid probabilities when judgments *a priori* are at stake (for what is alleged to be cognized *a priori* is thereby announced as necessary), it cannot be permitted them to play with guesses, but rather their assertions must be science or they are nothing at all.

It can be said that the whole of transcendental philosophy, which necessarily precedes all of metaphysics, is itself nothing other than simply the complete solution of the question presented here, but in systematic order and detail, and that until now there has therefore been no transcendental philosophy; for what goes under this name is really a part of metaphysics, but this science is to settle the possibility of metaphysics in the first place, and therefore must precede all metaphysics. Hence there need be no surprise because a science is needed that is utterly deprived of assistance from other sciences and hence is in itself completely new, in order just to answer a single question adequately, when the solution to it is conjoined with trouble and difficulty and even with some

In now setting to work on this solution – and indeed following the analytic method, in which we presuppose that such cognitions from pure reason are actual – we can appeal to only two sciences of theoretical knowledge (which alone is being discussed here), namely, pure mathematics and pure natural science; for only these can present objects to us in intuition, and consequently, if they happen to contain an a priori cognition, can show its truth or correspondence with the object in concreto, i.e., its actuality, from which one could then proceed along the analytic path to the ground of its possibility. This greatly facilitates the work, in which general considerations are not only applied to facts, but even start from them, instead of, as in the synthetic procedure, having to be derived wholly in abstracto from concepts.

But in order to ascend from these pure *a priori* cognitions (which are not only actual but also well-founded) to a possible cognition that we seek – namely, a metaphysics as science – we need to comprehend under our main question that which gives rise to metaphysics and which underlies its purely naturally given (though not above suspicion as regards truth) cognition *a priori* (which cognition, when pursued without any critical investigation of its possibility, is normally called metaphysics already) – in a word, the natural disposition to such a science; and so the main transcendental question, divided into four other questions, will be answered step by step:

1. How is pure mathematics possible?

2. How is pure natural science possible?

obscurity.

- 3. How is metaphysics in general possible?
- 4. How is metaphysics as science possible?

^a Allgemeinheit ^b wissen

Prolegomena to any future metaphysics

It can be seen that even if the solution to these problems is intended principally to present the essential content of the *Critique*, still it also possesses something distinctive that is worthy of attention in its own right, namely, the search for the sources of given sciences in reason itself, in order to investigate and to measure out for reason, by way of the deed itself, its power to cognize something *a priori*; whereby these sciences themselves then benefit, if not with respect to their content, nonetheless as regards their proper practice, and, while bringing light to a higher question regarding their common origin, they simultaneously provide occasion for a better explanation of their own nature.

Main Transcendental Question, First Part How is pure mathematics possible?

§6

Here now is a great and proven body of cognition, "which is already of admirable extent and promises unlimited expansion in the future, which carries with it thoroughly apodictic certainty (i.e., absolute necessity), hence rests on no grounds of experience, and so is a pure product of reason, but beyond this is thoroughly synthetic. "How is it possible then for human reason to achieve such cognition wholly a priori?" Does not this capacity, since it is not, and cannot be, based on experience, presuppose some a priori basis for cognition, which lies deeply hidden, but which might reveal itself through these its effects, if their first beginnings were but diligently tracked down?

§7

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We find, however, that all mathematical cognition has this distinguishing feature, that it must present its concept beforehand *in intuition* and indeed *a priori*, consequently in an intuition that is not empirical but pure, without which means it cannot take a single step; therefore its judgments are always *intuitive*, in the place of which philosophy can content itself with *discursive* judgments *from mere concepts*, and can indeed exemplify its apodictic teachings through intuition but can never derive them from it. This observation with respect to the nature of mathematics already guides us toward the first and highest condition of its possibility; namely, it must be grounded in some *pure intuition* or other, in which it can present, or, as one calls it, *construct* all of its concepts *in concreto* yet a priori.* If we could discover this pure intuition and its possibility, then from there it could easily be explained how synthetic a priori propositions are possible in pure mathematics, and consequently also how this science

^{*} See Critique p. 713.29

[&]quot; eine grosse und bewährte Erkenntniss

b intuitiv

c Anschauung

itself is possible; for just as empirical intuition makes it possible for us, without difficulty, to amplify (synthetically in experience) the concept we form of an object of intuition through new predicates that are presented by intuition itself, so too will pure intuition do the same only with this difference: that in the latter case the synthetic judgment will be *a priori* certain and apodictic, but in the former only *a posteriori* and empirically certain, because the former contains only what is met with in contingent empirical intuition, while the latter contains what necessarily must be met with in pure intuition, since it is, as intuition *a priori*, inseparably bound with the concept *before all experience* or individual perception.

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But with this step the difficulty seems to grow rather than to diminish. For now the question runs: How is it possible to intuit something a priori? An intuition is a representation of the sort which would depend immediately on the presence of an object. It therefore seems impossible originally to intuit a priori, since then the intuition would have to occur without an object being present, either previously or now, to which it could refer, and so it could not be an intuition. Concepts are indeed of the kind that we can quite well form some of them for ourselves a priori (namely, those that contain only the thinking of an object in general) without our being in an immediate relation to an object, e.g., the concept of quantity, of cause, etc.; but even these still require, in order to provide them with signification and sense, a certain use in concreto, i.e., application to some intuition or other, by which an object for them is given to us. But how can the intuition of an object precede the object itself?

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If our intuition had to be of the kind that represented things as they are in themselves, then absolutely no intuition a priori would take place, but it would always be empirical. For I can only know what may be contained in the object in itself if the object is present and given to me. Of course, even then it is incomprehensible how the intuition of a thing that is present should allow me to cognize it the way it is in itself, since its properties cannot migrate over into my power of representation; but even granting such a possibility, the intuition still would not take place a priori, i.e., before the object were presented to me, for without that no basis for the relation of my representation to the object can be conceived; so it would have to be based on inspiration. There is therefore only one way possible for my intuition to precede the actuality of the object and occur as an a priori cognition, namely if it contains nothing else except the form of sensibility, which in me as subject precedes all actual impressions through which

I am affected by objects. For I can know a priori that the objects of the senses can be intuited only in accordance with this form of sensibility. From this it follows: that propositions which relate merely to this form of sensory intuition will be possible and valid for objects of the senses; also, conversely, that intuitions which are possible a priori can never relate to things other than objects of our senses.

§1C

4: 283

Therefore it is only by means of the form of sensory intuition that we can intuit things *a priori*, though by this means we can cognize objects only as they *appear* to us (to our senses), not as they may be in themselves; and this supposition is utterly necessary, if synthetic propositions *a priori* are to be granted as possible, or, in case they are actually encountered, if their possibility is to be conceived and determined in advance.

Now space and time are the intuitions upon which pure mathematics bases all its cognitions and judgments, which come forward as at once apodictic and necessary; for mathematics must first exhibit all of its concepts in intuition - and pure mathematics in pure intuition - i.e., it must first construct them, failing which (since mathematics cannot proceed analytically, namely, through the analysis of concepts, but only synthetically) it is impossible for it to advance a step, that is, as long as it lacks pure intuition, in which alone the material^b for synthetic judgments a priori can be given. Geometry bases itself on the pure intuition of space. Even arithmetic forms its concepts of numbers through successive addition of units in time, but above all pure mechanics can form its concepts of motion only by means of the representation of time.30 Both representations are, however, merely intuitions; for, if one eliminates from the empirical intuitions of bodies and their alterations (motion) everything empirical, that is, that which belongs to sensation, then space and time still remain, which are therefore pure intuitions that underlie a priori the empirical intuitions, and for that reason can never themselves be eliminated; but, by the very fact that they are pure intuitions a priori, they prove that they are mere forms of our sensibility that must precede all empirical intuition (i.e., the perception of actual objects), and in accordance with which objects can be cognized a priori, though of course only as they appear to us.

§11

The problem of the present section is therefore solved. Pure mathematics, as synthetic cognition *a priori*, is possible only because it refers to

b Stoff

^a Adding *nur*, with Vorländer.

no other objects than mere objects of the senses, the empirical intuition of which is based on a pure and indeed a priori intuition (of space and time), and can be so based because this pure intuition is nothing but the mere form of sensibility, which precedes the actual appearance of objects, since it in fact first makes this appearance possible. This faculty of intuiting a priori does not, however, concern the matter of appearance i.e., that which is sensation in the appearance, for that constitutes the empirical – but only the form of appearance, space and time. If anyone wishes to doubt in the slightest that the two area not determinations inhering in things in themselves but only mere determinations inhering in the relation of those things to sensibility, I would very much like to know how he can find it possible to know, a priori and therefore before all acquaintance with things, how their intuition must be constituted which certainly is the case here with space and time. But this is completely comprehensible as soon as the two are taken for nothing more than formal conditions of our sensibility, and objects are taken merely for appearances; for then the form of appearance, i.e., the pure intuition, certainly can be represented from ourselves, i.e., a priori.

§12

In order to add something by way of illustration and confirmation, we need only to consider the usual and unavoidably necessary procedure of the geometers. All proofs of the thoroughgoing equality of two given figures (that one can in all parts be put in the place of the other) ultimately come down to this: that they are congruent with one another; which plainly is nothing other than a synthetic proposition based upon immediate intuition; and this intuition must be given pure and a priori, for otherwise that proposition could not be granted as apodictically certain but would have only empirical certainty. It would only mean: we observe it always to be so and the proposition holds only as far as our perception has reached until now. That full-standing space (a space that is itself not the boundary of another space)31 has three dimensions, and that space in general cannot have more, is built upon the proposition that not more than three lines can cut each other at right angles in one point; this proposition can, however, by no means be proven from concepts, but rests immediately upon intuition, and indeed on pure a priori intuition, because it is apodictically certain; indeed, that we can require that a line should be drawn to infinity (in indefinitum), or that a series of changes (e.g., spaces traversed through motion) should be continued to infinity, presupposes a representation of space and of time that can only inhere in intuition, that is, insofar as the latter is not in itself bounded

a Reading sind for seyn, with Ak.

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by anything;³² for this could never be concluded from concepts. Therefore pure intuitions *a priori* indeed actually do underlie mathematics, and make possible its synthetic and apodictically valid propositions; and consequently our transcendental deduction of the concepts of a space and time³³ at the same time explains the possibility of a pure mathematics, a possibility which, without such a deduction, and without our assuming that "everything which our senses may be given (the outer in space, the inner in time) is only intuited by us as it appears to us, not as it is in itself," could indeed be granted, but into which we could have no insight at all.

§13

All those who cannot yet get free of the conception, as if space and time were actual qualities attaching to things in themselves, can exercise their acuity on the following paradox, and, if they have sought its solution in vain, can then, free of prejudice at least for a few moments, suppose that perhaps the demotion of space and of time to mere forms of our sensory intuition may indeed have foundation.

If two things are fully the same (in all determinations belonging to magnitude and quality) in all the parts of each that can always be cognized by itself alone, it should indeed then follow that one, in all cases and respects, can be put in the place of the other, without this exchange causing the least recognizable difference. In fact this is how things stand with plane figures in geometry; yet various spherical figures,³⁴ notwithstanding this sort of complete inner agreement, nonetheless reveal such a difference in outer relation that one cannot in any case be put in the place of the other; e.g., two spherical triangles from each of the hemispheres, which have an arc of the equator for a common base, can be fully equal with respect to their sides as well as their angles, so that nothing will be found in either, when it is fully described by itself, that is not also in the description of the other, and still one cannot be put in the place of the other (that is, in the opposite hemisphere); and here is then after all an inner difference between the triangles that no understanding can specify as inner, and that reveals itself only through the outer relation in space. But I will cite more familiar instances that can be taken from ordinary life.

What indeed can be more similar to, and in all parts more equal to, my hand or my ear than its image in the mirror? And yet I cannot put such a hand as is seen in the mirror in the place of its original; for if the one was a right hand, then the other in the mirror is a left, and the image of the right ear is a left one, which can never take the place of the former. Now there

⁴ Reading von for im, with Vorländer.

^b Adding *Verschiedenheit*, with Vorländer.

are no inner differences here that any understanding could merely think; and yet the differences are inner as far as the senses teach, for the left hand cannot, after all, be enclosed within the same boundaries as the right (they cannot be made congruent), despite all reciprocal equality and similarity; one hand's glove cannot be used on the other. What then is the solution? These objects are surely not representations of things as they are in themselves, and as the pure understanding would cognize them, rather, they are sensory intuitions, i.e., appearances, whose possibility rests on the relation of certain things, unknown in themselves, to something else, namely our sensibility. Now, space is the form of outer intuition of this sensibility, and the inner determination of any space is possible only through the determination of the outer relation to the whole space of which the space is a part (the relation to outer sense); that is, the part is possible only through the whole, which never occurs with things in themselves as objects of the understanding alone, but well occurs with mere appearances. We can therefore make the difference between similar and equal but nonetheless incongruent things (e.g., oppositely spiralled snails) intelligible through no concept alone, but only through the relation to right-hand and left-hand, which refers immediately to intuition.

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Note I

Pure mathematics, and especially pure geometry, can have objective reality only under the single condition that it refers merely to objects of the senses, with regard to which objects, however, the principle remains fixed, that our sensory representation is by no means a representation of things in themselves, but only of the way in which they appear to us. From this it follows, not at all that the propositions of geometry are determinations of a mere figment of our poetic phantasy,35 and therefore could not with certainty be referred to actual objects, but rather, that they are valid necessarily for space and consequently for everything that may be found in space, because space is nothing other than the form of all outer appearances, under which alone objects of the senses can be given to us. Sensibility, whose form lies at the foundation of geometry, is that upon which the possibility of outer appearances rests; these, therefore, can never contain anything other than what geometry prescribes to them. It would be completely different if the senses had to represent objects as they are in themselves. For then it absolutely would not follow from the representation of space, a representation that serves a priori, with all the various properties of space, as foundation for the geometer, that all of this, together with what is deduced from it, must be exactly so

^a Adding sind, with Ak.

in nature. The space of the geometer would be taken for mere fabrication and would be credited with no objective validity, because it is simply not to be seen how things would have to agree necessarily with the image that we form of them by ourselves and in advance. If, however, this image or, better, this formal intuition - is the essential property of our sensibility by means of which alone objects are given to us, and if this sensibility represents not things in themselves but only their appearances, then it is very easy to comprehend, and at the same time to prove incontrovertibly: that all outer objects of our sensible world must necessarily agree, in complete exactitude, with the propositions of geometry, because sensibility itself, through its form of outer intuition (space), with which the geometer deals, first makes those objects possible, as mere appearances. It will forever remain a remarkable phenomenon in the history of philosophy that there was a time when even mathematicians who were at the same time philosophers began to doubt, not, indeed, the correctness of their geometrical propositions insofar as they related merely to space, but the objective validity and application to nature of this concept itself and all its geometrical determinations, since they were concerned that a line in nature might indeed be composed of physical points, consequently that true space in objects might be composed of simple parts, notwithstanding that the space which the geometer holds in thought can by no means be composed of such things.³⁶ They did not realize that this space in thought itself makes possible physical space, i.e., the extension of matter; that this space is by no means a property of things in themselves, but only a form of our power of sensory representation; that all objects in space are mere appearances, i.e., not things in themselves but representations of our sensory intuition; and that, since space as the geometer thinks it is precisely the form of sensory intuition which we find in ourselves a priori and which contains the ground of the possibility of all outer appearances (with respect to their form), these appearances must of necessity and with the greatest precision harmonize with the propositions of the geometer, which he extracts not from any fabricated concept, but from the subjective foundation of all outer appearances, namely sensibility itself. In this and no other way can the geometer be secured, regarding the indubitable objective reality of his propositions, against all the chicaneries of a shallow metaphysics, however strange this way must seem to such a metaphysics because it does not go back to the sources of its concepts.

Note II

Everything that is to be given to us as object must be given to us in intuition. But all our intuition happens only by means of the senses; the understanding intuits nothing, but only reflects. Now since, in accordance

with what has just been proven, the senses never and in no single instance enable us to cognize things in themselves, but only their appearances, and as these are mere representations of sensibility, "consequently all bodies together with the space in which they are found must be taken for nothing but mere representations in us, and exist nowhere else than merely in our thoughts." Now is this not manifest idealism?³⁷

Idealism consists in the claim that there are none other than thinking beings; the other things that we believe we perceive in intuition are only representations in thinking beings, to which in fact no object existing outside these beings corresponds. I say in opposition: There are things given to us as objects of our senses existing outside us, yet we know nothing of them as they may be in themselves, but are acquainted only with their appearances, i.e., with the representations that they produce in us because they affect our senses. Accordingly, I by all means avow that there are bodies outside us, i.e., things which, though completely unknown to us as to what they may be in themselves, we know through the representations which their influence on our sensibility provides for us, and to which we give the name of a body – which word therefore merely signifies the appearance of this object that is unknown to us but is nonetheless real. Can this be called idealism? It is the very opposite of it.

That one could, without detracting from the actual existence of outer things, say of a great many of their predicates: they belong not to these 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 acknowledged long before Locke's time, though more commonly thereafter. To these predicates belong warmth, color, taste, etc. That I, however, even beyond these, include (for weighty reasons) also among mere appearances the remaining qualities of bodies, which are called primarias: extension, place, and more generally space along with everything that depends on it (impenetrability or materiality, shape, etc.), is something against which not the least ground for uncertainty can be raised; and as little as someone can be called an idealist because he wants to admit colors as properties that attach not to the object in itself, but only to the sense of vision as modifications, just as little can my system be called idealist simply because I find that even more of, nay, all of the properties that make up the intuition of a body belong merely to its appearance: for the existence of the thing that appears is not thereby nullified, as with real idealism, but it is only shown that through the senses we cannot cognize it at all as it is in itself.

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I would very much like to know how then my claims must be framed so as not to contain any idealism. Without doubt I would have to say: that the representation of space not only is perfectly in accordance with the relation that our sensibility has to objects, for I have said that, but that it is even fully similar to the object; an assertion to which I can attach no sense, any more than to the assertion that the sensation of red is similar to the property of cinnabar that excites this sensation in me.

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Note III

From this an easily foreseen but empty objection can now be quite easily rejected: "namely that through the ideality of space and time the whole sensible world would be transformed into sheer illusion."38 After all philosophical insight into the nature of sensory cognition had previously been perverted by making sensibility into merely a confused kind of representation, through which we might still cognize things as they are but without having the ability to bring everything in this representation of ours to clear consciousness, we showed on the contrary that sensibility consists not in this logical difference of clarity or obscurity, but in the genetic difference of the origin of the cognition itself, since sensory cognition does not at all represent things as they are but only in the way in which they affect our senses, and therefore that through the senses mere appearances, not the things themselves, are given to the understanding for reflection;³⁹ from this necessary correction an objection arises, springing from an inexcusable and almost deliberate misinterpretation, as if my system transformed all the things of the sensible world into sheer illusion.

If an appearance is given to us, we are still completely free as to how we want to judge things from it. The former, namely the appearance, was based on the senses, but the judgment on the understanding, and 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 decided through the quality of the representations that are referred to objects, for they are the same in both, but through their connection according to the rules that determine the combination of representations in the concept of an object, and how far they can or cannot stand together in one experience. And then it is not the fault of the appearances at all, if our cognition takes illusion for truth, i.e., if intuition, through which an object is given to us, is taken for the concept of the object, or even for its existence, which only the understanding can think. The course of the planets is represented to us by the senses as now progressive, now retrogressive, and herein is neither falsehood nor truth, because as long as one grants that this is as yet only appearance, one still does not judge at all the objective quality of their motion. Since,

^a wissen

^b kennen

c unbekannt

^d kennen

however, if the understanding has not taken good care to prevent this subjective mode of representation from being taken for objective, a false judgment can easily arise, one therefore says: they appear to go backwards; but the illusion is not ascribed to the senses, but to the understanding, whose lot alone it is to render an objective judgment from the appearance.

In this manner, if we do not reflect at all on the origin of our representations, and we connect our intuitions of the senses, whatever they may contain, in space and time according to rules for the combination of all cognition in one experience, then either deceptive illusion or truth can arise, according to whether we are heedless or careful; that concerns only the use of sensory representations in the understanding, and not their origin. In the same way, if I take all the representations of the senses together with their form, namely space and time, for nothing but appearances, and these last two for a mere form of sensibility that is by no means to be found outside it in the objects, and I make use of these same representations only in relation to possible experience: then in the fact that I takea them for mere appearances is contained not the least illusion or temptation toward error; for they nonetheless can be connected together correctly in experience according to rules of truth. In this manner all the propositions of geometry hold good for space as well as for all objects of the senses, and hence for all possible experience, whether I regard space as a mere form of sensibility or as something inhering in things themselves; though only in the first case can I comprehend how it may be possible to know those propositions a priori for all objects of outer intuition; otherwise, with respect to all merely possible experience, everything remains just as if I had never undertaken this departure from the common opinion.

But if I venture to go beyond all possible experience with my concepts of space and time – which is inevitable if I pass them off for qualities that attach to things in themselves (for what should then prevent me from still permitting them to hold good for the very same things, even if my senses might now be differently framed and either suited to them or not?) – then an important error can spring up which rests on an illusion, since I passed off as universally valid that which was a condition for the intuition of things (attaching merely to my subject, and surely valid for all objects of the senses, hence for all merely possible experience), because I referred it to the things in themselves and did not restrict it to conditions of experience.

Therefore, it is so greatly mistaken that my doctrine of the ideality of space and time makes the whole sensible world a mere illusion, that, on the contrary, my doctrine is the only means for securing the application

to actual objects of one of the most important bodies of cognition – namely, that which mathematics expounds *a priori* – and for preventing it from being taken for nothing but mere illusion, since without this observation it would be quite impossible to make out whether the intuitions of space and time, which we do not derive from experience but which nevertheless lie *a priori* in our representations, were not mere self-produced fantasies, to which no object at all corresponds, at least not adequately, and therefore geometry itself a mere illusion, whereas we have been able to demonstrate the incontestable validity of geometry with respect to all objects of the sensible world for the very reason that the latter are mere appearances.

Second, it is so greatly mistaken that these principles of mine, because they make sensory representations into appearances, are supposed, in place of the truth of experience, to transform sensory representations into mere illusion, that, on the contrary, my principles are the only means of avoiding the transcendental illusion by which metaphysics has always been deceived and thereby tempted into the childish endeavor of chasing after soap bubbles, because appearances, which after all are mere representations, were taken for things in themselves; from which followed all those remarkable enactments of the antinomy of reason, which I will mention later on, and which is removed through this single observation: that appearance, as long as it is used in experience, brings forth truth, but as soon as it passes beyond the boundaries of experience and becomes transcendent, brings forth nothing but sheer illusion.

Since I therefore grant their reality to the things that we represent to ourselves through the senses, and limit our sensory intuition of these things only to the extent that in no instance whatsoever, not even in the pure intuitions of space and time, does it represent anything more than mere appearances of these things, and never their quality in themselves, this is therefore no thoroughgoing illusion ascribed by me to nature, and my protestation against all imputation of idealism is so conclusive and clear that it would even seem superfluous if there were not unauthorized judges who, being glad to have an ancient name for every deviation from their false though common opinion, and never judging the spirit of philosophical nomenclatures but merely clinging to the letter, were ready to put their own folly in the place of well-determined concepts. and thereby to twist and deform them. For the fact that I have myself given to this theory of mine the name of transcendental idealism cannot justify anyone in confusing it with the empirical idealism of Descartes (although this idealism was only a problem, whose insolubility left everyone free, in Descartes' opinion, to deny the existence of the corporeal world, since the problem could never be answered satisfactorily) or with

^a Reading halte for enthalte, with Ak.

^a Reading vorstelle for vorstellen, with Ak.

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the mysticaland visionary^{a, 40} idealism of Berkeley (against which, along with other similar fantasies, our Critique, on the contrary, contains the proper antidote).41 For what I called idealism did not concern the existence of things (the doubting of which, however, properly constitutes idealism according to the received meaning), for it never came into my mind to doubt that, but only the sensory representation of things, to which space and time above all belong; and about these last, hence in general about all appearances, I have only shown: that they are not things (but mere modes of representation), nor are they determinations that belong to things in themselves. The word transcendental, however, which with me never signifies a relation of our cognition to things, but only to the faculty of cognition, was intended to prevent this misinterpretation. But before it prompts still more of the same, I gladly withdraw this name, and I will have it called critical idealism. But if it is an in fact reprehensible idealism to transform actual things (not appearances) into mere representations,42 with what name shall we christen that idealism which, conversely, makes mere representations into things? I think it could be named dreaming idealism, to distinguish it from the preceding, which may be called visionary idealism, both of which were to have been held off by my formerly so-called transcendental, or better, critical idealism.

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Main Transcendental Question, Second Part How is pure natural science possible?

§14

Nature is the existence of things, insofar as that existence is determined according to universal laws. If nature meant the existence of things in themselves, we would never be able to cognize it, either a priori or a posteriori. Not a priori, for how are we to know what pertains to things in themselves, inasmuch as this can never come about through the analysis of our concepts (analytical propositions), since I do not want to know what may be contained in my concept of a thing (for that belongs to its logical essence), but what would be added to this concept in the actuality of a thing, and what the thing itself would be determined by in its existence apart from my concept. My understanding, and the conditions under which alone it can connect the determinations of things in their existence, prescribes no rule to the things themselves; these do not conform to my understanding, but my understanding would have to conform to them; they would therefore have to be given to me in advance so that these determinations could be drawn from them, but then they would not be cognized a priori.

Such cognition of the nature of things in themselves would also be impossible *a posteriori*. For if experience were supposed to teach me *laws* to which the existence of things is subject, then these laws, insofar as they relate to things in themselves, would have to apply to them *necessarily* even apart from my experience. Now experience teaches me what there is and how it is, but never that it necessarily must be so and not otherwise. Therefore it can never teach me the nature of things in themselves.

§15

Now we are nevertheless actually in possession of a pure natural science, which, *a priori* and with all of the necessity required for apodictic propositions, propounds laws to which nature is subject. Here I need call to witness only that propaedeutic to the theory of nature which, under

^a schwaermerischen

b Reading dieselbe for denselben, with Ak.

§17

The *formal* in nature in this narrower meaning is therefore the conformity to law of all objects of experience, and, insofar as this conformity is cognized *a priori*, the *necessary* conformity to law of those objects. But it has just been shown: that the laws of nature can never be cognized *a priori* in objects insofar as these objects are considered, not in relation to possible experience, but as things in themselves. We are here, however, concerned not with things in themselves (the properties of which we leave undetermined), but only with things as objects of a possible experience, and the sum total of such objects is properly what we here call nature. And now I ask whether, if the discussion is of the possibility of a cognition of nature *a priori*, it would be better to frame the problem in this way: How is it possible to cognize *a priori* the necessary conformity to law *of things* as objects of experience, or: How is it possible in general to cognize *a priori* the necessary conformity to law *of experience* itself with regard to all of its objects?

On closer examination, whether the question is posed one way or the other, its solution will come out absolutely the same with regard to the pure cognition of nature (which is actually the point of the question). For the subjective laws under which alone a cognition of things through experience^a is possible also hold good for those things as objects of a possible experience (but obviously not for them as things in themselves, which, however, are not at all being considered here). It is completely the same, whether I say: A judgment of perception can never be considered as valid for experience without the law, that if an event is perceived then it is always referred to something preceding from which it follows according to a universal rule; or if I express myself in this way: Everything of which experience shows that it happens must have a cause.

It is nonetheless more appropriate to choose the first formulation. For since we can indeed, *a priori* and previous to any objects being given, have a cognition of those conditions under which alone an experience regarding objects is possible, but never of the laws to which objects may be subject in themselves without relation to possible experience, we will therefore be able to study *a priori* the nature of things in no other way than by investigating the conditions, and the universal (though subjective) laws, under which alone such a cognition is possible as experience (as regards mere form), and determining the possibility of things as objects of experience accordingly; for were I to choose the second mode of expression and to seek the *a priori* conditions under which nature is possible as an *object* of experience, I might then easily fall into misunderstanding

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the title of universal natural science, precedes all of physics (which is founded on empirical principles).4 Therein we find mathematics applied to appearances, and also merely discursive principles^b (from concepts), which make up the philosophical part of pure cognition of nature.⁴³ But indeed there is also much in it that is not completely pure and independent of sources in experience, such as the concept of motion, of impenetrability (on which the empirical concept of matter is based), of inertia, among others, so that it cannot be called completely pure natural science; furthermore it refers only to the objects of the outer senses, and therefore does not provide an example of a universal natural science in the strict sense; for that would have to bring nature in general whether pertaining to an object of the outer senses or of the inner sense (the object of physics as well as psychology) - under universal laws. But among the principles of this universal physics44 a few are found that actually have the universality we require, such as the proposition: that substance remains and persists, that everything that happens always previously is determined by a cause according to constant laws, and so on. These are truly universal laws of nature, that exist fully a priori. There is then in fact a pure natural science, and now the question is: How is it possible?

§16

The word nature assumes yet another meaning, namely one that determines the object, whereas in the above meaning it only signified the conformity to law of the determinations of the existence of things in general. Nature considered materialiter 45 is the sum total of all objects of experience. We are concerned here only with this, since otherwise things that could never become objects of an experience if they had to be cognized according to their nature would force us to concepts whose significance could never be given in concreto (in any example of a possible experience), and we would therefore have to make for ourselves mere concepts of the nature of those things,^c the reality of which concepts, i.e., whether they actually relate to objects or are mere beings of thought, could not be decided at all. Cognition of that which cannot be an object of experience would be hyperphysical, and here we are not concerned with such things at all, but rather with that cognition of nature, the reality of which can be confirmed through experience, even though such cognition is possible a priori and precedes all experience.

^a Principien

b Grundsätze

^c Reading deren for dessen, with Ak.

^a Erfahrungserkenntniss; not translated as "empirical cognition," which translates Kant's empirische Erkenntniss, which he distinguished from the former (§18).

and fancy that I had to speak about nature as a thing in itself, and in that case I would be wandering about fruitlessly in endless endeavors to find laws for things about which nothing is given to me.

We will therefore be concerned here only with experience and with the universal conditions of its possibility which are given a priori, and from there we will determine nature as the whole object of all possible experience. I think I will be understood: that here I do not mean the rules for the observation of a nature that is already given, which presuppose experience already; and so do not mean, how we can learn the laws from nature (through experience), for these would then not be laws a priori and would provide no pure natural science; but rather, how the a priori conditions of the possibility of experience are at the same time the sources out of which all universal laws of nature must be derived.

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We must therefore first of all note: that, although all judgments of experience are empirical, i.e., have their basis in the immediate perception of the senses, nonetheless the reverse is not the case, that all empirical judgments are therefore judgments of experience; rather, beyond the empirical and in general beyond what is given in sensory intuition, special concepts must yet be added, which have their origin completely a priori in the pure understanding, and under which every perception can first be subsumed and then, by means of the same concepts, transformed into experience.

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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 do not require a pure concept of the understanding, but only the logical connection of perceptions in a thinking subject. But the former always demand, in addition to the representations of sensory intuition, special concepts originally generated in the understanding, which are precisely what make the judgment of experience objectively valid.

All of our judgments are at first mere judgments of perception; they hold only for us, i.e., for our subject, and only afterwards do we give them a new relation, namely to an object, and intend that the judgment should also be valid at all times for us and for everyone else; for if a judgment agrees with an object, then all judgments of the same object must also agree with one another, and hence the objective validity of a judgment of experience signifies nothing other than its necessary universal validity. But also conversely, if we find cause to deem a judgment necessarily, universally valid (which is never based on the perception, but on the pure concept of the understanding under which the perception is subsumed), we must then also deem it objective, i.e., as expressing

not merely a relation of a perception to a subject, but a property of an object; for there would be no reason why other judgments necessarily would have to agree with mine, if there were not the unity of the object an object to which they all refer, with which they all agree, and, for that reason, also must all harmonize among themselves.

§19

Objective validity and necessary universal validity (for everyone) are therefore interchangeable concepts, and although we do not know the object in itself, nonetheless, if we regard a judgment as universally valid and hence necessary, objective validity is understood to be included. Through this judgment we cognize the object (even if it otherwise remains unknown as it may be in itself) by means of the universally valid and necessary connection of the given perceptions; and since this is the case for all objects of the senses, judgments of experience will not derive their objective validity from the immediate cognition of the object 4: 299 (for this is impossible), but merely from the condition for the universal validity of empirical judgments, which, as has been said, never rests on empirical, or indeed sensory conditions at all, but on a pure concept of the understanding. The object always remains unknown in itself; if, however, through the concept of the understanding the connection of the representations which it provides to our sensibility is determined as universally valid, then the object is determined through this relation, and the judgment is objective.

Let us provide examples: that the room is warm, the sugar sweet, the wormwood⁴⁶ repugnant,* are merely subjectively valid judgments. I do not at all require that I should find it so at every time, or that everyone else should find it just as I do; they express only a relation of two sensations to the same subject, namely myself, and this only in my present state of perception, and are therefore not expected to be valid for the object: these I call judgments of perception. The case is completely different with judgments of experience. What experience teaches me

^{*} I gladly admit that these examples do not present judgments of perception such as could ever become judgments of experience if a concept of the understanding were also added, because they refer merely to feeling - which everyone acknowledges to be merely subjective and which must therefore never be attributed to the object - and therefore can never become objective; I only wanted to give for now an example of a judgment that is merely subjectively valid and that contains in itself no basis for necessary universal validity and, thereby, for a relation to an 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.

under certain circumstances, it must teach me at every time and teach everyone else as well, and its validity is not limited to the subject or its state at that time. Therefore I express all such judgments as objectively valid; as, e.g., if I say: the air is elastic, then this judgment is to begin with only a judgment of perception; I relate two sensations in my senses only to one another. If I want it to be called a judgment of experience, I then require that this connection be subject to a condition that makes it universally valid. I want therefore that I, at every time, and also everyone else, would necessarily have to connect the same perceptions^a under the same circumstances.

§20

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We will therefore have to analyze experience in general, in order to see what is contained in this product of the senses and the understanding, and how the judgment of experience is itself possible. At bottom lies the intuition of which I am conscious, i.e., perception (perceptio), which belongs solely to the senses. But, secondly, judging (which pertains solely to the understanding) also belongs here. Now this judging can be of two types: first, when I merely compare the perceptions and connect them in a consciousness of my state, or, second, when I connect them in a consciousness in general. The first judgment is merely a judgment of perception and has thus far only subjective validity; it is merely a connection of perceptions within my mental state, without reference to the object. Hence it is not, as is commonly imagined, sufficient for experience to compare perceptions and to connect them in one consciousness by means of judging; from that there arises no universal validity and ne-

A completely different judgment therefore occurs before experience can arise from perception. 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 furnishes empirical judgments with universal validity; a concept of this kind is a pure *a priori* concept of the understanding, which does nothing but simply determine for an intuition the mode in general in which it can serve for judging. The concept of cause being such a concept, it therefore determines the intuition which is subsumed under it, e.g., that of air, with respect to judging in general – namely, so that the concept of air serves, with respect to expansion, in the relation of the antecedent to the consequent in a hypothetical judgment. The concept of cause is therefore a pure concept

cessity of the judgment, on account of which alone it can be objectively

valid and so can be experience.

of the understanding, which is completely distinct from all possible perception, and serves only, with respect to judging in general, to determine that representation which is contained under it and so to make possible a universally valid judgment.

Now before a judgment of experience can arise from a judgment of perception, it is first required: that the perception be subsumed under a concept of the understanding of this kind; e.g., the air belongs under the concept of cause, which determines the judgment about the air as hypothetical with respect to expansion.* This expansion is thereby represented not as belonging merely to my perception of the air in my state of perception or in several of my states or in the state of others, but as necessarily belonging to it, and the judgment: the air is elastic, becomes universally valid and thereby for the first time a judgment of experience, because certain judgments occur beforehand, which subsume the intuition of the air under the concept of cause and effect, and thereby determine the perceptions not merely with respect to each other in my subject, but with respect to the form of judging in general (here, the hypothetical), and in this way make the empirical judgment universally valid.

If one analyzes all of one's synthetic judgments insofar as they are objectively valid, one finds that they never consist in mere intuitions that have, as is commonly thought, merely been connected in a^b judgment through comparison,⁴⁷ but rather that they would not be possible if, over and above the concepts drawn from intuition, a pure concept of the understanding had not been added under which these concepts had been subsumed and in this way first combined into an objectively valid judgment. Even the judgments of pure mathematics in its simplest axioms are not exempt from this condition. The principle: a straight line is the shortest line between two points, presupposes that the line has been subsumed under the concept of magnitude, which certainly is no mere intuition, but has its seat solely in the understanding and serves to determine the intuition (of the line) with respect to such judgments as may be passed on it as regards the quantity of these judgments, namely plurality

^a Reading Wahrnehmungen for Wahrnehmung, as suggested at Ak 4:617.

^{*} To have a more easily understood example, consider the following: If the sun shines on the stone, it becomes warm. This judgment is a mere judgment of perception and contains no necessity, however often I and others also have perceived this; the perceptions are only usually found so conjoined. But if I say: the sun warms the stone, then beyond the perception is added the understanding's concept of cause, which connects necessarily the concept of sunshine with that of heat, and the synthetic judgment becomes necessarily universally valid, hence objective, and changes from a perception into experience.

^a Reading Ursache for Ursachen, with Ak.

^b Reading einem for ein, with Ak.

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4: 302 (as *judicia plurativa**), since through such judgments it is understood that in a given intuition a homogeneous plurality is contained.

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In order therefore to explain the possibility of experience insofar as it rests on pure *a priori* concepts of the understanding, we must first present that which belongs to judgments in general, and the various moments of the understanding therein, in a complete table; for the pure concepts of the understanding – which are nothing more than concepts of intuitions in general insofar as these intuitions are, with respect to one or another of these moments, in themselves determined to judgments and therefore determined necessarily and with universal validity – will come out exactly parallel to them. By this means the *a priori* principles of the possibility of all experience as objectively valid empirical cognition will also be determined quite exactly. For they are nothing other than propositions that subsume all perception (according to certain universal conditions of intuition) under those pure concepts of the understanding.

of Judgments

According to Quantity

Universal Particular Singular

2. According to Quality

Affirmative Negative Infinite

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According to Relation

Categorical Hypothetical Disjunctive

4. According to Modality

Problematic Assertoric Apodictic

* So I would prefer those judgments to be called, which are called *particularia* in logic. For the latter expression already contains the thought that they are not universal. If, however, I commence from unity (in singular judgments) and then continue on to the totality, I still cannot mix in any reference to the totality; I think only a plurality without totality, not the exception to the latter.⁴⁸ This is necessary, if the logical moments are to be placed under the pure concepts of the understanding; in logical usage things can remain as they were.

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TRANSCENDENTAL TABLE of Concepts of the Understanding

According to Quantity

Unity (measure)
Plurality (magnitude)
Totality (the whole)

According to Quality

Reality Negation Limitation According to Relation

Substance Cause Community

4. According to Modality

Possibility Existence Necessity

PURE PHYSIOLOGICAL TABLE of Universal Principles of Natural Science

1.
Axioms
of intuition

Anticipations of perception

Analogies of experience

Postulates of empirical thinking in general

 $\S 2 \mathbb{I}[a]^a$

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In order to comprise all the preceding in one notion, it is first of all necessary to remind the reader that the discussion here is not about the genesis of experience, but about that which lies in experience. The former belongs to empirical psychology and could never be properly developed even there without the latter, which belongs to the critique of cognition and especially of the understanding.

^a Reading zu for zum, with Vorländer.

⁴ Adding the letter "a," with Ak and Vorländer, to distinguish this section from the preceding one, both of which are shown as "§21" in the original edition.

Experience consists of intuitions, which belong to sensibility, and of judgments, which are solely the understanding's business. Those judgments that the understanding forms solely from sensory intuitions are, however, still not judgments of experience by a long way. For in the one case the judgment would only connect perceptions as they are given in sensory intuition; but in the latter case the judgments are supposed to say what experience in general contains, therefore not what mere perception - whose validity is merely subjective - contains. The judgment of experience must still therefore, beyond the sensory intuition and its logical connection (in accordance with which the intuition has been rendered universal through comparison in a judgment), add something that determines the synthetic judgment as necessary, and thereby as universally valid; and this can be nothing but that concept which represents the intuition as in itself determined with respect to one form of judgment rather than the others, b i.e., c a concept of that synthetic unity of intuitions which can be represented only through a given logical function of judgments.

§22

To sum this up: the business of the senses is to intuit; that of the understanding, to think. To think, however, is to unite representations in a consciousness. This unification either arises merely relative to the subject and is contingent and subjective, or it occurs without condition and is necessary or objective. The unification of representations in a consciousness is judgment. Therefore, thinking is the same as judging or as relating representations to judgments in general. Judgments are therefore either merely subjective, if representations are related to one consciousness in one subject alone and are united in it, or they are objective, if they are united in a consciousness in general, i.e., are united necessarily therein. The logical moments of all judgments are so many possible ways of uniting representations in a consciousness. If, however, the very same moments serve as concepts, they are concepts of the necessary unification of these representations in a consciousness, and so are principles^d of objectively valid judgments. This unification in a consciousness is either analytic, through identity, or synthetic, through combination and addition of various representations with one another. Experience consists in the synthetic connection of appearances (perceptions) in a consciousness, insofar as this connection is necessary.

^a Reading dem einen for einem, as suggested by Vorländer.

b Reading anderen for andere, with Ak.

^c Reading d. i. for die, with Ak.

d Principien

4: 305

Therefore pure concepts of the understanding are those under which all perceptions must first be subsumed before they can serve in judgments of experience, in which the synthetic unity of perceptions is represented as necessary and universally valid.*

Judgments, insofar as they are regarded merely as the condition for the unification of given representations in a consciousness, are rules. These rules, insofar as they represent the unification as necessary, are a priori rules, and provided that there are none above them from which they can be derived, are principles. Now since, with respect to the possibility of all experience, if merely the form of thinking is considered in the experience, no conditions on judgments of experience are above those that bring the appearance (according to the varying form of their intuition) under pure concepts of the understanding (which make the empirical judgment 4: 306 objectively valid), these conditions are therefore the a priori principles of possible experience.

Now the principles of possible experience are, at the same time, universal laws of nature that can be cognized a priori. And so the problem that lies in our second question, presently before us: how is pure natural science possible? is solved. For the systematization that is required for the form of a science is here found to perfection, since beyond the aforementioned formal conditions of all judgments in general, hence of all rules whatsoever furnished by logic, no others are possible, and these form a logical system; but the concepts based thereon, which contain b the apriori conditions for all synthetic and necessary judgments, for that very reason form a transcendental system; finally, the principles by means of

* But how does this proposition: that judgments of experience are supposed to contain necessity in the synthesis of perceptions, square with my proposition, urged many times above: that experience, as a posteriori cognition, can provide merely contingent judgments? If I say: Experience teaches me something, I always mean only the perception that is in it - e.g., that upon illumination of the stone by the sun, warmth always follows - and hence the proposition from experience is, so far, always contingent. That this warming follows necessarily from illumination by the sun is indeed contained in the judgment of experience (in virtue of the concept of cause), but I do not learn it from experience; rather, conversely, experience is first generated through this addition of a concept of the understanding (of cause) to the perception. Concerning how the perception may come by this addition, the Critique must be consulted, in the section on transcendental judgment, pp. 137ff.49

⁴ Reading Naturwissenschaft for Vernunftwissenschaft, with Ak.

b Reading enthalten for erhalten, with Ak.

which all appearances are subsumed under these concepts form a physiological system, i.e., a system of nature," which precedes all empirical cognition of nature and first makes it possible, and can therefore be called the true universal and pure natural science.

§24

The first of the physiological principles subsumes all appearances, as intuitions in space and time, under the concept of magnitude and is to that extent a principle for the application of mathematics to experience. The second does not subsume the properly empirical - namely sensation, which signifies the real^d in intuitions – directly under the concept of magnitude, since sensation is no intuition containing space or time, although it does place the object corresponding to it in both; but there nonetheless is, between reality (sensory representation) and nothing, i.e., the complete emptiness of intuition in time, a difference that has a magnitude, for indeed between every given degree of light and darkness, every degree of warmth and the completely cold, every degree of heaviness and absolute lightness, every degree of the filling of space and completely empty space, ever smaller degrees can be thought, just as between consciousness and total unconsciousness (psychological darkness) ever smaller degrees occur; therefore no perception is possible that would show a complete absence, e.g., no psychological darkness is possible that could not be regarded as a consciousness that is merely outweighed by another, stronger one, and thus it is in all cases of sensation; as a result of which the understanding can anticipate even sensations, which form the proper quality of empirical representations (appearances), by means of the principle that they all without exception, hence the real in all appearance, have degrees - which is the second application of mathematics (mathesis intensorum) to natural science.⁵¹

§25

With respect to the relation of appearances, and indeed exclusively with regard to their existence, the determination of this relation is

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not mathematical but dynamical, and it cana never be objectively valid, hence fit for experience, if it is not subject to a priori principles, which first make cognition through experience possible with respect to that determination.⁵² Therefore appearances must be subsumed under the concept of substance, which, as a concept of the thing itself, underlies all determination of existence; or second, insofar as a temporal sequence, i.e., an event, is met with among the appearances, they must be subsumed under the concept of an effect in relation to ab cause; or, insofar as coexistence is to be cognized objectively, i.e., through a judgment of experience, they must be subsumed under the concept of community (interaction): and so a priori principles underlie objectively valid, though empirical, judgments, i.e., they underlie the possibility of experience insofar as it is supposed to connect objects in nature according to existence. These principles are the actual laws of nature, which can be called dynamical.

Finally, there also belongs to judgments of experience the cognition of agreement and connection: not so much of the appearances among themselves in experience, but of their relation to experience in general, a relation that contains either their agreement with the formal conditions that the understanding cognizes, or their connection with the material 4: 308 of the senses and perception, or both united in one concept, and thus possibility, existence, and necessity according to universal laws of nature; all of which would constitute the physiological theory of method (the distinction of truth and hypotheses, and the boundaries of the reliability of the latter).

826

Although the third table of principles, which is drawn from the nature of the understanding itself according to the critical method, in itself exhibits a perfection through which it raises itself far above every other that has (albeit vainly) ever been attempted or may yet be attempted in the future from the things themselves through the dogmatic method: namely, that in it^d all of the synthetic principles a priori are exhibited completely and according to a principle, namely that of the faculty for judging in general (which constitutes the essence of experience with respect to the understanding), so that one can be certain there are no more such principles (a satisfaction that the dogmatic method can never provide) nevertheless this is still far from being its greatest merit.

^{*} The three subsequent sections could be difficult to understand properly, if one does not have at hand what the Critique says about principles as well; but they might have the advantage of making it easier to survey the general features of such principles and to attend to the main points.50

b Reading der for das, with Ak.

Reading der for das, with Ak.

d Reale

^a Adding kann, with Ak.

^b Adding eine, with Vorländer.

^c Reading beides for beiden, as suggested at Ak 4:617.

d Reading in ihr for sie, with Vorländer.

^e Princip

Notice must be taken of the ground of proof that reveals the possibility of this *a priori* cognition and at the same time limits all such principles to a condition that must never be neglected if they are not to be misunderstood and extended in use further than the original sense which the understanding places in them will allow: namely, that they contain only the conditions of possible experience in general, insofar as it is subject to *a priori* laws. Hence 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 that no one can prove, because such a synthetic connection out of mere concepts, in which all relation to sensory intuition on the one hand and all connection of such intuition in a possible experience on the other is lacking, is utterly impossible. Therefore the essential limitation on the concepts in these principles is: that only *as objects of experience* are all things necessarily subject *a priori* to the aforementioned conditions.

From this there follows then secondly a specifically characteristic mode of proving the same thing: that the above-mentioned principles are not referred directly to appearances and their relation, but to the possibility of experience, for which appearances constitute only the matter but not the form, i.e., they are referred to the objectively and universally valid synthetic propositions through which judgments of experience are distinguished from mere judgments of perception. This happens because the appearances, as mere intuitions that fill a part of space and time, are subject to the concept of magnitude, which synthetically unifies the multiplicity of intuitions a priori according to rules; and because the real in the appearances must have a degree, insofar as perception contains, beyond intuition, sensation as well, between which and nothing, i.e., the complete disappearance of sensation, a transition always occurs by diminution, insofar, that is, as sensation itself fills no part of space and time,*

* Warmth, light, etc. are just as great (according to degree) in a small space as in a large one; just as the inner representations (pain, consciousness in general) are not smaller according to degree whether they last a short or a long time. Hence the magnitude here is just as great in a point and in an instant as in every space and time however large. Degrees are therefore magnitudes, ont, however, in intuition, but in accordance with mere sensation, or indeed with the magnitude of the ground of an intuition, and can be assessed as magnitudes only through the relation of 1 to 0, i.e., in that every sensation can proceed in a certain time to vanish through infinite intermediate degrees, or to grow from nothing to a determinate sensation through infinite moments of accretion. (Quantitas qualitatis est gradus.)^d

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but yet the transition to sensation from empty time or space is possible only in time, with the consequence that although sensation, as the quality of empirical intuition with respect to that by which a sensation differs specifically from other sensations, can never be cognized *a priori*, it nonetheless can, in a possible experience in general, as the magnitude of perception, be distinguished intensively from every other sensation of the same kind; from which, then, the application of mathematics to nature, with respect to the sensory intuition whereby nature is given to us, is first made possible and determined.

Mostly, however, the reader must attend to the mode of proving the principles that appear under the name of the Analogies of Experience. For since these do not concern the generation of intuitions, as do the principles for applying mathematics to natural science in general, but the connection of their existence in one experience, and since this connection can be nothing other than the determination of existence in time according to necessary laws, under which alone the connection is objectively valid and therefore is experience: it follows that the proof does not refer to synthetic unity in the connection of things in themselves, but of perceptions, and of these indeed not with respect to their content, but to the determination of time and to the relation of existence in time in accordance with universal laws. These universal laws contain therefore the necessity of the determination of existence in time in general (hence a priori according to a rule of the understanding), if the empirical determination in relative time is to be objectively valid, and therefore to be experience. For the reader who is stuck in the long habit of taking experience to be a mere empirical combining of perceptions - and who therefore has never even considered that it extends much further than these reach, that is, that it gives to empirical judgments universal validity and to do so requires a pure unity of the understanding that precedes a priori - I cannot adduce more here, these being prolegomena, except only to recommend: to heed well this distinction of experience from a mere aggregate of perceptions, and to judge the mode of proof from this standpoint.

§27

Here is now the place to dispose thoroughly of the Humean doubt. He rightly affirmed: that we in no way have insight through reason into the possibility of causality, i.e., the possibility of relating the existence of one thing to the existence of some other thing that would necessarily be posited through the first one. I add to this that we have just as little insight into the concept of subsistence, i.e., of the necessity that a subject, which itself cannot be a predicate of any other thing, should

⁴ Reading sollen for soll, with Vorländer.

b Reading enthalten for enthalte, as suggested at Ak 4:617.

^c Reading Grössen for grösser, with Vorländer.

d "The magnitude of quality is degree."

[&]quot; Reading nichts for nicht, with Ak.

underlie the existence of things – nay, that we cannot frame any concept of the possibility of any such thing (although we can point out examples of its use in experience); and I also add that this very incomprehensibility affects the community of things as well, since we have no insight whatsoever into how, from the state of one thing, a consequence could be drawn about the state of completely different things outside it (and vice versa), and into how substances, each of which has its own separate existence, should depend on one another and should indeed do so necessarily. Nonetheless, I am very far from taking these concepts to be merely borrowed from experience, and from taking the necessity represented in them to be falsely imputed and a mere illusion through which long habit deludes us; rather, I have sufficiently shown that they and the principles taken from them stand firm a priori prior to all experience, and have their undoubted objective correctness, though of course only with respect to experience.

828

Although I therefore do not have the least concept of such a connection of things in themselves, how they can exist as substances or act as causes or stand in community with others (as parts of a real whole), and though I can still less think such properties of appearances as appearances (for these concepts do not contain what lies in appearances, but what the understanding alone must think), we nonetheless do have a concept of such a connection of representations in our understanding, and indeed in judging in general, namely: that representations belong in one kind of judgments as subject in relation to predicate, in another as ground in relation to consequence, and in a third as parts that together make up a whole possible experience. Further, we cognize a priori: that, without regarding the representation of an object as determined with respect to one or another of these moments, we could not have any cognition at all that was valid for the object; and if we were to concern ourselves with the object in itself, then no unique characteristic would be possible by which I could cognize that it had been determined with respect to one or another of the above-mentioned moments, i.e., that it belonged 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. The question is not, however, how things in themselves, but how the cognition of things in experience is determined with respect to said moments of judgments in general, i.e., how things as objects of experience can and should be subsumed under those concepts of the understanding. And then it is clear that I have complete insight into not only the possibility but also the necessity of subsuming all appearances under these concepts, i.e., of using them as principles of the possibility of experience.

§29

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For having a try at Hume's problematic concept (this, his crux metaphysicorum),^a namely the concept of cause, there is first given to me a priori, by means of logic: the form of a conditioned judgment in general, that is, the use of a given cognition as ground and another as consequent. It is, however, possible that in perception a rule of relation will be found, which says this: that a certain appearance is constantly followed by another (though not the reverse); and this is a case for me to use hypothetical judgment and, e.g., to say: If a body is illuminated by the sun for long enough, then it becomes warm. Here there is of course not yet a necessity of connection, hence not yet the concept of cause. But I continue on, and say: if the above proposition, which is merely a subjective connection of perceptions, is to be a proposition of experience, then it must be regarded as necessarily and universally valid. But a proposition of this sort would be: The sun through its light is the cause of the warmth. The foregoing empirical rule is now regarded as a law, and indeed as valid not merely of appearances, but of them on behalf of a possible experience, which requires universally and therefore necessarily valid rules. I therefore have quite good insight into the concept of cause, as a concept that necessarily belongs to the mere form of experience, and into its possibility as a synthetic unification of perceptions in a consciousness in general; but I have no insight at all into the possibility of a thing in general as a cause, and that indeed because the concept of cause indicates a condition that in no way attaches to things, but only to experience, namely, that experience can be an objectively valid cognition of appearances and their sequence in time only insofar as the antecedent appearance can be connected with the subsequent one according to the rule of hypothetical judgments.

§30

Consequently, even the pure concepts of the understanding have no significance at all if they depart from objects of experience and want to be referred to things in themselves (noumena).^b They serve as it were

⁴ Reading eines oder des for einer oder der, with Ak.

^b Reading *er* for *es*, with Ak.

[&]quot;cross of metaphysics"

b Noumena is a latinized Greek word (singular: noumenon) meaning literally "that which is thought" or "that which is conceived," but used by Kant in connection with the

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only to spell out appearances, so that they can be read as experience; the principles that arise from their relation to the sensible world serve our understanding for use in experience only; beyond this there are arbitrary connections without objective reality whose possibility cannot be cognized a priori and whose relation to objects cannot, through any example, be confirmed or even made intelligible, since all examples can be taken only from some possible experience or other and hence the objects of these concepts can be met with nowhere else but in a possible experience.

This complete solution of the Humean problem, though coming out contrary to the surmise of the originator, thus restores to the pure concepts of the understanding their a priori origin, and to the universal laws of nature their validity as laws of the understanding, but in such a way that it restricts their use to experience only, because their possibility is founded solely in the relation of the understanding to experience: not, however, in such a way that they are derived from experience, but that experience is derived from them, a completely reversed type of connection that never occurred to Hume.

From this now flows the following result of all the foregoing investigations: "All synthetic a priori principles" are nothing more than principles of possible experience," and can never be related to things in themselves, but only to appearances as objects of experience. Therefore both pure mathematics and pure natural science can never refer to anything more than mere appearances, and they can only represent either that which makes experience in general possible, or that which, being derived from these principles, must always be able to be represented in some possible experience or other.

And so for once one has something determinate, and to which one can adhere in all metaphysical undertakings, which have up to now boldly enough, but always blindly, run over everything without distinction. It never occurred to dogmatic thinkers that the goal of their efforts might have been set up so close, nor even to those who, obstinate in their socalled sound common sense, d sallied forth to insights with concepts and principles of the pure understanding that were indeed legitimate and

philosophical meaning of nous as "intellect" to mean "intelligible objects," or "intelligible beings" or "beings of the understanding." In §32 he contrasts noumena with phaenomena, which he speaks of as "sensible beings" or "appearances."

natural, but were intended for use merely in experience, and for which they neither recognized nor could recognize any determinate boundaries, because they neither had reflected on nor were able to reflect on 4: 314 the nature or even the possibility of such a pure understanding.

Many a naturalist of pure reason (by which I mean he who trusts himself, without any science, to decide in matters of metaphysics) would like to pretend that already long ago, through the prophetic spirit of his sound common sense, he had not merely suspected, but had known and understood, that which is here presented with so much preparation, or, if he prefers, with such long-winded pedantic pomp: "namely that with all our reason we can never get beyond the field of experiences." But since, if someone gradually questions him on his rational principles," he must indeed admit that among them there are many that he has not drawn from experience, which are therefore independent of it and valid a priori - how and on what grounds will he then hold within limits the dogmatist (and himself), who makes use of b these concepts and principles beyond all possible experience for the very reason that they are cognized independently of experience. And even he, this adept of sound common sense, is not so steadfast that, despite all of his presumed and cheaply gained wisdom, he will not stumble unawares out beyond the objects of experience into the field of chimeras. Ordinarily, he is indeed deeply enough entangled therein, although he cloaks his ill-founded claims in a popular style, since he gives everything out as mere probability, reasonable conjecture, or analogy.

832

Already from the earliest days of philosophy, apart from the sensible beings or appearances (phaenomena) that constitute the sensible world, investigators of pure reason have thought of special intelligible beings^d (noumena), which were supposed to form an intelligible world; and they have granted reality to the intelligible beings alone, because they took appearance and illusion to be one and the same thing (which may well be excused in an as yet uncultivated age).53

In fact, if we view the objects of the senses as mere appearances, as is fitting, then we thereby admit at the very same time that a thing in itself underlies them, although we are not acquainted with this thing as it may be constituted in itself, but only with its appearance, i.e., with the way in which our senses are affected by this unknown something. Therefore the

^a Grundsätze

^b Principien

^c Principien

d gesunde Vernunft

^a Vernunftprincipien

^b Adding sich, with Ak.

^c Sinnenwesen

^d Verstandeswesen

e Verstandeswelt

understanding, just by the fact that it accepts appearances, also admits to the existence of things in themselves, and to that extent we can say that the representation of such beings as underlie the appearances, hence of mere intelligible beings, is not merely permitted but also unavoidable.

Our critical deduction in no way excludes things of such kind (noumena), but rather restricts the principles of aesthetic⁵⁴ in such a way that they are not supposed to extend to all things, whereby everything would be transformed into mere appearance, but are to be valid only for objects of a possible experience. Hence intelligible beings are thereby allowed only with the enforcement of this rule, which brooks no exception whatsoever: that we do not know and cannot know anything determinate about these intelligible beings at all, because our pure concepts of the understanding as well as our pure intuitions refer to nothing but objects of possible experience, hence to mere beings of sense, and that as soon as one departs from the latter, not the least significance remains for those concepts.

§33

There is in fact something insidious in our pure concepts of the understanding, as regards enticement toward a transcendent use; for so I call that use which goes out beyond all possible experience. It is not only that our concepts of substance, of force, of action, of reality, etc., are wholly independent of experience, likewise contain no sensory appearance whatsoever, and so in fact seem to refer to things in themselves (noumena); but also, which strengthens this supposition yet further, that they contain in themselves a necessity of determination which experience never equals. The concept of cause contains a rule, according to which from one state of affairs another follows with necessity; but experience can only show us that from one state of things another state often, or, at best, commonly, follows, and it can therefore furnish neither strict universality nor necessity (and so forth).

Consequently, the concepts of the understanding appear to have much more significance and content than they would if their entire vocation were exhausted by mere use in experience, and so the understanding unheededly builds onto the house of experience a much roomier wing, which it crowds with mere beings of thought, without once noticing that it has taken its otherwise legitimate concepts far beyond the boundaries

of their use.

§34

Two important, nay completely indispensable, though utterly dry investigations were therefore needed, which were carried out in the Critique,

pp.137ff. and 235ff.55 Through the first of these it was shown that the senses do not supply pure concepts of the understanding in concreto, but only the schema for their use, and that the object appropriate to this schema is found only in experience (as the product of the understanding from materials of sensibility). In the second investigation (Critique, p. 235) it is shown: that notwithstanding the independence from experience of our pure concepts of the understanding and principles, and even their apparently larger sphere of use, nonetheless, outside the field of experience nothing at all can be thought by means of them, because they can do nothing but merely determine the logical form of judgment with respect to given intuitions; but since beyond the field of sensibility there is no intuition at all, these pure concepts lack completely all significance, in that there are no means through which they can be exhibited in concreto, and so all such noumena, together with their aggregate - an intelligible* world - are nothing but representations of a problem, whose object is in itself perfectly possible, but whose solution, given the nature of our understanding, is completely impossible, since our understanding is no faculty of intuition but only of the connection of given intuitions in an experience; and experience therefore has to contain all the objects for our concepts, whereas apart from it all concepts will be without significance, since no intuition can be put under them.

4:317

§35

The imagination may perhaps be excused if it daydreams^c every now and then, i.e., if it does not cautiously hold itself inside the limits of experience; for it will at least be enlivened and strengthened through such free flight, and it will always be easier to moderate its boldness than to remedy its languor. That the understanding, however, which is supposed to think, should, instead of that, daydream - for this it can never

* Not (as is commonly said) an intellectual " world. For the cognitions through the understanding are intellectual, and the same sort of cognitions also refer to our sensible world; but intelligible means objects insofar as they can be represented only through the understanding, and none of our sensory intuitions can refer to them. Since, however, to each object there must nonetheless correspond some possible intuition or other, we would therefore have to think of an understanding that intuits things immediately; of this sort of understanding, however, we have not the least concept, hence also not of the intelligible beings to which it is supposed to refer.

a intellectuellen

b intelligibel

c schwärmt

be forgiven; for all assistance in setting bounds, where needed, to the revelry^a of the imagination depends on it alone.

The understanding begins all this very innocently and chastely. First, it puts in order the elementary cognitions that dwell in it prior to all experience but must nonetheless always have their application in experience. Gradually, it removes these constraints, and what is to hinder it from doing so, since the understanding has quite freely taken its principles from within itself? And now reference is made first to newly invented forces in nature, soon thereafter to beings outside, nature, in a word, to a world for the furnishing of which building materials cannot fail us, since they are abundantly supplied through fertile invention, and though not indeed confirmed by experience, are also never refuted by it. That is also the reason why young thinkers so love metaphysics of the truly dogmatic sort, and often sacrifice their time and their otherwise useful talent to it.

It can, however, help nothing at all to want to curb these fruitless endeavors of pure reason by all sorts of admonitions about the difficulty of resolving such deeply obscure questions, by complaints over the limits of our reason, and by reducing assertions to mere conjectures. For if the *impossibility* of these endeavors has not been clearly demonstrated, and if reason's *knowledge of itself* b does not become true science, in which the sphere of its legitimate use is distinguished with geometrical certainty (so to speak) from that of its empty and fruitless use, then these futile efforts will never be fully abandoned.

§36 How is nature itself possible?

This question, which is the highest point that transcendental philosophy can ever reach, and up to which, as its boundary and completion, it must be taken, actually contains two questions.

FIRST: How is nature possible in general in the *material* sense, namely, according to intuition, as the sum total of appearances; how are space, time, and that which fills them both, the object of sensation, possible in general? The answer is: by means of the constitution of our sensibility, in accordance with which our sensibility is affected in its characteristic way by objects that are in themselves unknown to it and that are wholly distinct from said appearances. This answer is, in the book itself, given in the Transcendental Aesthetic, but here in the *Prolegomena* through the solution of the first main question.

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second: How is nature possible inthe *formal*^a sense, as the sum total of the rules to which all appearances must be subject if they are to be thought as connected in one experience? The answer cannot come out otherwise than: it is possible only by means of the constitution of our understanding, in accordance with which all these representations of sensibility are necessarily referred to one consciousness, and through which, first, the characteristic mode of our thinking, namely by means of rules, is possible, and then, by means of these rules, experience is possible – which is to be wholly distinguished from insight into objects in themselves. This answer is, in the book itself, given in the Transcendental Logic, 56 but here in the *Prolegomena*, in the course of solving the second main question.

But how this characteristic property of our sensibility itself may be possible, or that of our understanding and of the necessary apperception that underlies it and all thinking, cannot be further solved and answered, because we always have need of them in turn for all answering and for all thinking of objects.

There are many laws of nature that we can know only through experience, but lawfulness in the connection of appearances, i.e., nature in general, we cannot come to know through any experience, because experience itself has need of such laws, which lie *a priori* at the basis of its possibility.

The possibility of experience in general is thus at the same time the universal law of nature, and the principles of the former are themselves the laws of the latter. For we are not acquainted with nature except as the sum total of appearances, i.e., of the representations in us, and so we cannot get the laws of their connection from anywhere else except the principles of their connection in us, i.e., from the conditions of necessary unification in one consciousness, which unification constitutes the possibility of experience.

Even the main proposition that has been elaborated throughout this entire part, that universal laws of nature can be cognized *a priori*, already leads by itself to the proposition: that the highest legislation for nature must lie in ourselves, i.e., in our understanding, and that we must not seek the universal laws of nature from nature by means of experience, but, conversely, must seek nature, as regards its universal conformity to law, solely in the conditions of the possibility of experience that lie in our sensibility and understanding; for how would it otherwise be possible to become acquainted with these laws *a priori*, since they are surely not rules of analytic cognition, but are genuine synthetic amplifications of cognition? Such agreement, and indeed necessary agreement, between the principles^b of

[&]quot; Schwärmerei

^b Selbsterkenntniss

⁴ Emphasis added, with Vorländer.

^b Principien

possible experience and the laws of the possibility of nature, can come about only from one of two causes: either these laws are taken from nature by means of experience, or, conversely, nature is derived from the laws of the possibility of experience in general and is fully identical with the mere universal lawfulness of experience. The first one contradicts itself, for the universal laws of nature can and must be cognized *a priori* (i.e., independently of all experience) and set at the foundation of all empirical use of the understanding; so only the second remains.*

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We must, however, distinguish empirical laws of nature, which always presuppose particular perceptions, from the pure or universal laws of nature, which, without having particular perceptions underlying them, contain merely the conditions for the necessary unification of such perceptions in one experience; with respect to the latter laws, nature and possible experience are one and the same, and since in possible experience the lawfulness rests on the necessary connection of appearances in one experience (without which we would not be able to cognize any object of the sensible world at all), and so on the original laws of the understanding, then, even though it sounds strange at first, it is nonetheless certain, if I say with respect to the universal laws of nature: the understanding does not draw its (a priori) laws from nature, but prescribes them to it.

§37

We will elucidate this seemingly daring proposition through an example, which is supposed to show: that laws which we discover in objects of sensory intuition, especially if these laws have been cognized as necessary, are already held by us to be such as have been put there by the understanding, although they are otherwise in all respects like the laws of nature that we attribute to experience.

§38

If one considers the properties of the circle by which this figure unifies in a universal rule at once so many arbitrary determinations of the space within it, one cannot refrain from ascribing a nature to this geometrical thing. Thus, in particular, two lines that intersect each other and also the

* Crusius⁵⁷ alone knew of a middle way: namely that a spirit who can neither err nor deceive originally implanted these natural laws in us. But, since false principles are often mixed in as well – of which this man's system itself provides not a few examples – then, with the lack of sure criteria for distinguishing an authentic origin from a spurious one, the use of such a principle looks very precarious, since one can never know for sure what the spirit of truth or the father of lies may have put into us.

circle,58 however they happen to be drawn, nonetheless always partition each other in a regular manner such that the rectangle from the parts of one line is equal to that from the other. Now I ask: "Does this law lie in the circle, or does it lie in the understanding?" i.e., does this figure, independent of the understanding, contain the basis for this law in itself, or does the understanding, since it has itself constructed the figure in accordance with its concepts (namely, the equality of the radii), at the same time insert into it the law that chords cut one another in geometrical proportion? If one traces the proofs of this law, one soon sees that it can be derived only from the condition on which the understanding based the construction of this figure, namely, the equality of the radii. If we now expand upon this concept so as to follow up still further the unity of the manifold properties of geometrical figures under common laws, and we consider the circle as a conic section, which is therefore subject to the very same fundamental conditions of construction as other conic sections, we then find that all chords that intersect within these latter (within the ellipse, the parabola, and the hyperbola) always do so in such a way that the rectangles from their parts are, not indeed equal, but always stand to one another in equal proportions. If from there we go still further, namely to the fundamental doctrines of physical astronomy, there appears a physical law of reciprocal attraction, extending to all material nature, the rule of which is that these attractions^b decrease inversely with the square of the distance from each point of attraction, exactly as the spherical surfaces into which this force spreads itself increase, something that seems to reside as necessary in the nature of the things themselves and which therefore is customarily presented as cognizable a priori. As simple as are the sources of this law - in that they rest merely on the relation of spherical surfaces with different radii the consequence therefrom is nonetheless so excellent with respect to the variety and regularity of its agreement that not only does it follow that all possible orbits of the celestial bodies are conic sections, but also that their mutual relations are such that no other law of attraction save that of the inverse square of the distances can be conceived as suitable for a system of the world.

Here then is nature that rests on laws that the understanding cognizes a priori, and indeed chiefly from universal principles^d of the determination of space. Now I ask: do these laws of nature lie in space, and does the understanding learn them in that it merely seeks to investigate the wealth of meaning that lies in space, or do they lie in the understanding

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^a Adding sind, with Ak.

b Reading sie as plural, with the singular antecedent Attraction, with Vorländer.

^c Reading Kugelflächen for Kugelfläche, with Vorländer.

^d allgemeinen Principien

and in the way in which it determines space in accordance with the conditions of the synthetic unity toward which its concepts are one and all directed? Space is something so uniform, and so indeterminate with respect to all specific properties, that certainly no one will look for a stock of natural laws within it. By contrast, that which determines space into the figure of a circle, a cone, or a sphere is the understanding, insofar as it contains the basis for the unity of the construction of these figures. The mere universal form of intuition called space is therefore certainly the substratum of all intuitions determinable upon particular objects, and, admittedly, the condition for the possibility and variety of those intuitions lies in this space; but the unity of the objects is determined solely through the understanding, and indeed according to conditions that reside in its own nature; and so the understanding is the origin of the universal order of nature; in that it comprehends all appearances under its own laws and thereby first brings about experience a priori (with respect to its form), in virtue of which everything that is to be cognized only through experience is necessarily subject to its laws. For we are not concerned with the nature of the things in themselves, which is independent of the conditions of both our senses and understanding, but with nature as an object of possible experience, and here the understanding, since it makes experience possible, at the same time makes it that the sensible world is either not an object of experience at all, or else is

§39 Appendix to pure natural science On the system of categories

Nothing can be more desirable to a philosopher than to be able to derive, *a priori* from one principle, the multiplicity of concepts or basic principles that previously had exhibited themselves to him piecemeal in the use he had made of them *in concreto*, and in this way to be able to unite them all in one cognition. Previously, he believed simply that what was left to him after a certain abstraction, and that appeared, through mutual comparison, to form a distinct kind of cognitions, had been completely assembled: but this was only an *aggregate*; now he knows that only precisely so many, not more, not fewer, can constitute this kind of cognition, and he has understood the necessity of his division: this is a comprehending, and only now does he have a *system*.

nature.

To pick out from ordinary cognition the concepts that are not based on any particular experience and yet are present in all cognition from experience (for which they constitute as it were the mere form of connection) required no greater reflection or more insight than to cull from a language rules for the actual use of words in general, and so to compile the elements for a grammar (and in fact both investigations are very closely related to one another) without, for all that, even being able to give a reason why any given language should have precisely this and no other formal constitution, and still less why precisely so many, neither more nor fewer, of such formal determinations of the language can be found at all.

Aristotle had compiled ten such pure elementary concepts under the name of categories.* To these, which were also called predicaments, he later felt compelled to append five post-predicaments,** some of which (like *prius*, *simul*, *motus*) are indeed already found in the former; but this rhapsody⁵⁹ could better pass for, and be deserving of praise as, a hint for future inquirers than as an idea worked out according to rules, and so with the greater enlightenment of philosophy it too has been rejected as completely useless.

During an investigation of the pure elements of human cognition (containing nothing empirical), I was first of all able after long reflection to distinguish and separate with reliability the pure elementary concepts of sensibility (space and time) from those of the understanding. By this means the seventh, eighth, and ninth categories were now excluded from the above list. The others could be of no use to me, because no principle was available whereby the understanding could be fully surveyed and all of its functions, from which its pure concepts arise, determined exhaustively and with precision.

In order, however, to discover such a principle,^d I cast about for an act of the understanding that contains all the rest and that differentiates itself only through various modifications or moments in order to bring the multiplicity of representation under the unity of thinking in general; and there I found that this act of the understanding consists in judging. Here lay before me now, already finished though not yet wholly free of defects, the work of the logicians, through which I was put in

^a Princip

^b Grundsätze

^c Reading *diese* for *die*, as suggested in Vorländer.

d ein Begreifen; contrasted with the "comparison" mentioned earlier.

^{* 1.} Substantia. 2. Qualitas. 3. Quantitas. 4. Relatio. 5. Actio. 6. Passio. 7. Quando. 8. Ubi. 9. Situs. 10. Habitus.^a

^{**} Oppositum, Prius, Simul, Motus, Habere.b

⁴ Substance, quality, quantity, relation, action, affection, time, place, position, state.

^b Opposition, priority, simultaneity, motion, possession.

^c Princip

^d Princip

the position to present a complete table of pure functions of the understanding, which were however undetermined with respect to every object. Finally, I related these functions of judging to objects in general, or rather to the condition for determining judgments as objectively valid, and there arose pure concepts of the understanding, about which I could have no doubt that precisely these only, and of them only so many, neither more nor fewer, can make up our entire cognition of things out of the bare understanding. As was proper, I called them *categories*, after their ancient name, whereby I reserved for myself to append in full, under the name of *predicables*, all the concepts derivable from them—whether by connecting them with one another, or with the pure form of appearance (space and time) or its matter, provided the latter is not yet determined empirically (the object of sensation in general)—just as soon as a system of transcendental philosophy should be achieved, on behalf of which I had, at the time, been concerned only with the critique of reason itself.

The essential thing, however, in this system of categories, by which it is distinguished from that ancient rhapsody (which proceeded without any principle),^a and in virtue of which it alone deserves to be counted as philosophy, consists in this: that through it^b the true signification of the pure concepts of the understanding and the condition of their use could be exactly determined. For here it became apparent that the pure concepts of the understanding are, of themselves, nothing but logical functions, but that as such they do not constitute the least concept of an object in itself but rather need sensory intuition as a basis, and even then they serve only to determine empirical judgments, which are otherwise undetermined and indifferent with respect to all the functions of judging, with respect to those functions, so as to procure universal validity for them, and thereby to make judgments of experience possible in general.

This sort of insight into the nature of the categories, which would at the same time restrict their use merely to experience, never occurred to their first originator, or to anyone after him; but without this insight (which depends precisely on their derivation or deduction), they are completely useless and are a paltry list of names, without explanation or rule for their use. Had anything like it ever occurred to the ancients, then without doubt the entire study of cognition through pure reason, which under the name of metaphysics has ruined so many good minds over the centuries, would have come down to us in a completely different form and would have enlightened the human understanding, instead of, as has actually happened, exhausting it in murky and vain ruminations and making it unserviceable for true science.

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This system of categories now makes all treatment of any object of pure reason itself systematic in turn, and it yields an undoubted instruction or guiding thread as to how and through what points of inquiry any metaphysical contemplation must be directed if it is to be complete; for it exhausts all moments of the understanding, under which every other concept must be brought. Thus too has arisen the table of principles, of whose completeness we can be assured only through the system of categories; and even in the division of concepts that are supposed to go beyond the physiological use of the understanding (Critique, p. 344, also p. 415),60 there is always the same guiding thread, which, since it always must be taken through the same fixed points determined a priori in the human understanding, forms a closed circle every time, leaving no room for doubt that the object of a pure concept of the understanding or reason, insofar as it is to be examined philosophically and according to a priori principles, can be cognized completely in this way. I have not even been able to refrain from making use of this guide with respect to one of the most abstract of ontological classifications, namely the manifold differentiation of the concepts of something and nothing, and accordingly from achieving a rule-governed and necessary table (Critique, p. 292). *61

This very system, like every true system founded on a universal principle, also exhibits its inestimable usefulness in that it expels all the

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* All sorts of nice notes can be made on a laid-out table of categories, such as: 1. that the third arises from the first and second, conjoined into one concept, 2. that in those for quantity 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 thus: Reality, Limitation, full Negation), without correlata or opposita, while those of relation and modality carry the latter with them, 3. that, just as in the *logical table*, categorical judgments underlie all the others, so the category of substance underlines all concepts of real things, 4. that, just as modality in a judgment is not a separate predicate, so too the modal concepts^b do not add a determination to things, and so on. Considerations such as these all have their great utility. If beyond this all the predicables are enumerated - they can be extracted fairly completely from any good ontology (e.g., Baumgarten's)⁶² – and if they are ordered in classes under the categories (in which one must not neglect to add as complete an analysis as possible of all these concepts), then a solely analytical part of metaphysics will arise, which as yet contains no synthetic proposition whatsoever and could precede the second (synthetic) part, and, through its determinateness and completeness, might have not only utility, but beyond that, in virtue of its systematicity, a certain beauty.⁶³

⁴ Princip

b Reading desselben for derselben, with Ak.

[&]quot; Reading fortgehe for forgehen, with Vorländer.

^b Reading *Modalbegriffe* for *Modelbegriffe*, with Ak.

^c Princip

extraneous concepts that might otherwise creep in among these pure concepts of the understanding, and it assigns each cognition its place. Those concepts that, under the name of concepts of reflection, I had also put into a table under the guidance of the categories mingle in ontology with the pure concepts of the understanding without privilege and legitimate claims, although the latter are concepts of connection and thereby of the object itself, whereas the former are only concepts of the mere comparison of already given concepts, and therefore have an entirely different nature and use; through my law-governed division (Critique, p. 260)64 they are extricated from this amalgam. But the usefulness of this separated table of categories shines forth yet more brightly if, as will soon be done, we separate from the categories the table of transcendental concepts of reason, which have a completely different nature and origin than the concepts of the understanding (so that the table must also have a different form), a separation that, necessary as it is, has never occurred in any system of metaphysics, as a result of which these ideas of reason and concepts of the understanding run confusedly together as if they belonged to one family, like siblings, an intermingling that also could never have been avoided in the absence of a separate system of categories.

Main Transcendental Question, Third Part How is metaphysics in general possible?

§40

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Pure mathematics and pure natural science would not have needed, for the purpose of their own security and certainty, a deduction of the sort that we have hitherto accomplished for them both; for the first is supported by its own evidence, whereas the second, though arising from pure sources of the understanding, is nonetheless supported from experience and thoroughgoing confirmation by it – experience being a witness that natural science cannot fully renounce and dispense with, because, as philosophy, 65 despite all its certainty it can never rival mathematics. Neither science had need of the aforementioned investigation for itself, but for another science, namely metaphysics.

Apart from concepts of nature, which always find their application in experience, metaphysics is further concerned with pure concepts of reason that are never given in any possible experience whatsoever, hence with concepts whose objective reality (that they are not mere fantasies) and with assertions whose truth or falsity cannot be confirmed or exposed by any experience; and this part of metaphysics is moreover precisely that which forms its essential end, toward which all the rest is only a means – and so this science needs such a deduction for its own sake. The third question, now put before us, therefore concerns as it were the core and the characteristic feature of metaphysics, namely, the preoccupation of reason simply with itself, and that acquaintance with objects which is presumed to arise immediately from reason's brooding over its own concepts without its either needing mediation from experience for such an acquaintance, or being able to achieve such an acquaintance through experience at all.*

* If it can be said that a science is *actual* at least in the thought^b of all humankind from the moment it has been determined that the problems which lead to it are set before everyone by the nature of human reason, and therefore that many (if faulty) attempts at those problems are always inevitable, it will also have to be said: Metaphysics is subjectively actual (and necessarily so); and then we will rightly ask: How is it (objectively) possible?

^a Adding wo daher, with Ak.

^a Bekanntschaft

[&]quot; Idee

Without a solution to this question, reason will never be satisfied with itself. The use in experience to which reason limits the pure understanding does not entirely fulfill reason's own vocation. Each individual experience is only a part of the whole sphere of the domain of experience, but the absolute totality of all possible experience is not itself an experience, and yet is still a necessary problem for reason, for the mere representation of which reason needs concepts entirely different from the pure concepts of the understanding, whose use is only immanent, i.e., refers to experience insofar as such experience can be given, whereas the concepts of reason extend to the completeness, i.e., the collective unity of the whole of possible experience, and in that way exceed any given experience and become transcendent.

Hence, just as the understanding needed the categories for experience, reason contains in itself the basis for ideas, by which I mean necessary concepts whose object nevertheless *cannot* be given in any experience. The latter are just as intrinsic to the nature of reason as are the former to that of the understanding; and if the ideas carry with them an illusion that can easily mislead, this illusion is unavoidable, although it can very well be prevented "from leading us astray."

Since all illusion consists in taking the subjective basis for a judgment to be objective, pure reason's knowledge of itself in its transcendent (overreaching)^c use will be the only prevention against the errors into which reason falls if it misconstrues its vocation and, in transcendent fashion, refers to the object in itself that which concerns only its own subject and the guidance of that subject in every use that is immanent.

§41

The distinction of *ideas*, i.e., of pure concepts of reason, from categories, or pure concepts of the understanding, as cognitions of completely different type, origin, and use, is so important a piece of the foundation of a science which is to contain a system of all these cognitions *a priori* that, without such a division, metaphysics is utterly impossible, or at best is a disorderly and bungling endeavor to patch together a house of cards, without knowledge of the materials with which one is preoccupied and of their suitability for one or another end. If the *Critique of Pure Reason* had done nothing but first point out this distinction, it would thereby have already contributed more to elucidating^d our conception of, and to guiding inquiry in, the field of metaphysics, than have all the fruitless

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efforts undertaken previously to satisfy the transcendent problems of pure reason, without it ever being imagined that one may have been situated in a completely different field from that of the understanding, and as a result was listing the concepts of the understanding together with those of reason as if they were of the same kind.

§42

All the pure cognitions of the understanding are such that their concepts can be given in experience and their principles confirmed through experience; by contrast, the transcendent cognitions of reason neither allow what relates to their *ideas* to be given in experience, nor their *theses*^a ever to be confirmed or refuted through experience; hence, only pure reason itself can detect the error that perhaps creeps into them, though this is very hard to do, because this selfsame reason by nature becomes dialectical through its ideas, and this unavoidable illusion cannot be kept in check through any objective and dogmatic investigation^b of things, but only through a subjective investigation of reason itself, as a source^c of ideas.

§43

In the *Critique* I always gave my greatest attention not only to how I could distinguish carefully the types of cognition, but also to how I could derive all^d the concepts belonging to each type from their common source, so that I might not only, by learning their origin, be able to determine their use with certainty, but also have the inestimable advantage (never yet imagined) of cognizing *a priori*, hence according to principles,^e the completeness of the enumeration, classification, and specification of the concepts. Failing this, everything in metaphysics is nothing but rhapsody, in which one never knows whether what one has is enough, or whether and where something may still be lacking. Such an advantage is, of course, available only in pure philosophy, but it constitutes the 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 completely natural to look for the origin of the ideas in the three functions of syllogisms; f for once such pure concepts of reason (transc. ideas) have

a ganzen

^b absolute Ganze

c überschwenglichen

d Aufklärung

a Sätze

^b Reading Untersuchung for Untersuchungen, as suggested in Vorländer.

Reading eines Quells for einem Quell, with Ak.

d Reading alle for allein, with Ak.

^{*} Principier

f Vernunftschlüsse; literally, "inferences of reason."

been granted; then, if they are not to be taken for innate, they could indeed be found nowhere else except in this very act of reason which, insofar as it relates merely to form, constitutes the logical in syllogisms, but, insofar as it represents the judgments of the understanding as determined with respect to one or another a priori form, constitutes the transcendental concepts of pure reason.

The formal distinction of syllogisms necessitates their division into categorical, hypothetical, and disjunctive. Therefore the concepts of reason based thereupon 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 sum total of the possible. * The first idea was psychological,^c the second cosmological, the third theological; and since all three give rise to a dialectic, but each in its own way, all this provided the basis for dividing the entire dialectic of pure reason into the paralogism, the antinomy, and finally the ideal of pure reason - through which derivation it is rendered completely certain that all claims of pure reason are represented here in full, and not one can be missing, since the faculty of reason itself, whence they all originate, is thereby fully surveyed.

§44

In this examination it is in general further noteworthy: that the ideas of reason^d are not, like the categories, helpful to us in some way in using the understanding with respect to experience, but are completely dispensable with respect to such use, nay, are contrary to and obstructive of the maxims for the cognition of nature through reason, although they are still quite necessary in another respect, yet to be determined.⁶⁶

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In explaining the appearances of the soul, we can be completely indifferent as to whether it is a simple substance or not; for we are unable through any possible experience to make the concept of a simple being sensorily intelligible, hence intelligible in concreto; and this concept is therefore completely empty with respect to all hoped-for insight into the cause of the appearances, and cannot serve as a principle" of explanation of that which supplies inner or outer experience. Just as little can the cosmological ideas of the beginning of the world or the eternity of the world (a parte ante)b help us to explain any event in the world itself. Finally, in accordance with a correct maxim of natural philosophy, we must refrain from all explanations of the organization of nature drawn from the will of a supreme being, because this is no longer natural philosophy but an admission that we have come to the end of it. These ideas therefore have a completely different determination of their use from that of the categories, through which (and through the principles built upon them) experience itself first became possible. Nevertheless our laborious analytic of the understanding⁶⁷ would have been entirely superfluous, if our aim had been directed toward nothing other than mere cognition of nature insofar as such cognition can be given in experience; for reason conducts its affairs in both mathematics and natural science quite safely and quite well, even without any such subtle deduction; hence our critique of the understanding joins with the ideas of pure reason for a purpose that lies beyond the use of the understanding in experience, though we have said above that the use of the understanding in this regard is wholly impossible and without object or significance. There must nonetheless be agreement between what belongs to the nature of reason and of the understanding, and the former must contribute to the perfection of the latter and cannot possibly confuse

The solution to this question is as follows: Pure reason does not, among its ideas, have in view particular objects that might lie beyond the field of experience, but it merely demands completeness in the use of 4: 332 the understanding in the connection of experience. This completeness can, however, only be a completeness of principles, d but not of intuitions and objects. Nonetheless, in order to represent these principles determinately, reason conceives of them as the cognition of an object, cognition of which is completely determined with respect to these rules though the object is only an idea - so as to bring cognition through

^{*} In disjunctive judgments we consider all possibility as divided with respect to a certain concept. The ontological principle of the thoroughgoing determination of a thing in general (out of all possible opposing predicates, one is attributed to each thing), which is at the same time the principle of all disjunctive judgments, founds itself upon the sum total of all possibility, in which the possibility of each thing in general is taken to be determinable. The following helps provide a small elucidation of the above proposition: That the act of reason in disjunctive syllogisms is the same in form with that by which reason achieves the idea of a sum total of all reality, which contains in itself the positive members of all opposing predicates.

a Princip

b Reading bestimmbar for bestimmter, with Ak.

Reading psychologisch for physiologisch, with Ak.

d Reading Vernunftideen for Vernunftidee, with Ak.

b "up until now," literally, "on the side of the previous."

c höchsten Wesens

d Principien

Prolegomena to any future metaphysics

the understanding as close as possible to the completeness that this idea signifies.

§45 Preliminary Remark On the Dialectic of Pure Reason

We have shown above (§§33, 34): that the purity of the categories from all admixture with sensory determinations can mislead reason into extending their use entirely beyond all experience to things in themselves; and yet, because the categories are themselves unable to find any intuition that could provide them with significance and sense in concreto, they cannot in and of themselves provide any determinate concept of anything at all, though they can indeed, as mere logical functions, represent a thing in general. Now hyperbolical objects of this kind are what are called NOUMENA or pure beings of the understanding (better: beings of thought)^a - such as, e.g., substance, but which is thought without persistence in time, or a cause, which would however not act in time, and so on because such predicates are attributed to these objects as serve only to make the lawfulness of experience possible, and yet they are nonetheless deprived of all the conditions of intuition under which alone experience is possible, as a result of which the above concepts again lose all significance.

There is, however, no danger that the understanding will of itself wantonly stray beyond its boundaries into the field of mere beings of thought, without being urged by alien laws. But if reason, which can never be fully satisfied with any use of the rules of the understanding in experience because such use is always still conditioned, requires completion of this chain of conditions, then the understanding is driven out of its circle, in order partly to represent the objects of experience in a series stretching so far that no experience can comprise the likes of it, partly (in order to complete the series) even to look for NOUMENA entirely outside said experience to which reason can attach the chain and in that way, independent at last of the conditions of experience, nonetheless can make its hold complete. These then are the transcendental ideas, which, although in accordance with the true but hidden end of the natural determination of our reason they may be aimed not at overreaching concepts but merely at the unbounded expansion of the use of concepts in experience, may nonetheless, through an unavoidable illusion, elicit from the understanding a transcendent use, which, though deceitful, nonetheless cannot be curbed by any resolve to stay within the bounds of experience, but only through scientific instruction and hard work.

^a Gedankenwesen, contrasted with the just previous Verstandeswesen.

§46 I. Psychological ideas (Critique, pp. 341ff.)69

It has long been observed that in all substances the true subject - namely that which remains after all accidents (as predicates) have been removed and hence the substantial itself, is unknown to us; and various complaints have been made about these limits to our insight. But it needs to be said that human understanding is not to be blamed because it does not know the substantial in things, i.e., cannot determine it by itself, but rather because it wants to cognize determinately, like an object that is given, what is only an idea. Pure reason demands that for each predicate of a thing we should seek its appropriate subject, but that for this subject, which is in turn necessarily only a predicate, we should seek its subject again, and so forth to infinity (or as far as we get). But from this it follows that we should take nothing that we can attain for a final subject, and that the substantial itself could never be thought by our ever-sodeeply penetrating understanding, even if the whole of nature were laid bare before it; for the specific nature of our understanding consists in thinking everything discursively, i.e., through concepts, hence through mere predicates, among which the absolute subject must therefore always be absent. Consequently, all real properties by which we cognize bodies are mere accidents for which we lack a subject - even impenetrability, 4: 334 which must always be conceived only as the effect of a force.

Now it does appear as if we have something substantial in the consciousness of ourselves (i.e., in the thinking subject), and indeed have it in immediate intuition; for all the predicates of inner sense are referred to the I as subject, and this I cannot again be thought as the predicate of some other subject. It therefore appears that in this case completeness in referring the given concepts to a subject as predicates is not a mere idea, but that the object, namely the absolute subject itself, is given in experience. But this expectation is disappointed. For the I is not a concept* at all, but only a designation of the object of inner sense insofar as we do not further cognize it through any predicate; hence although it cannot itself be the predicate of any other thing, just as little can it be a determinate concept of an absolute subject, but as in all the other cases it can only be the referring of inner appearances to their unknown subject.

^{*} If the representation of apperception, the I, were a concept through which anything might be thought, it could then be used as a predicate for other things, or contain such predicates in itself. But it is nothing more than a feeling of an existence without the least concept, and is only a representation of that to which all thinking stands in relation (relatione accidentis).a

a "relation of accident"

Nevertheless, through a wholly natural misunderstanding, this idea (which, as a regulative principle, serves perfectly well to destroy completely all materialistic explanations of the inner appearances of our soul) gives rise to a seemingly plausible argument for inferring the nature of our thinking being from this presumed cognition of the substantial in it, inasmuch as knowledge of its nature falls completely outside the sum total of experience.

This thinking self (the soul), as the ultimate subject of thinking, which cannot itself be represented as the predicate of another thing, may now indeed be called substance: but this concept nonetheless remains completely empty and without any consequences, if persistence (as that which renders the concept of substances fertile within experience) cannot be

proven of it.

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Persistence, however, can never be proven from the concept of a substance as a thing in itself, but only for the purposes of experience. This has been sufficiently established in the first Analogy of Experience (Critique, p. 182);70 and anyone who will not grant this proof can test for themselves whether they succeed in proving, from the concept of a subject that does not exist as the predicate of another thing, that the existence of that subject is persistent throughout, and that it can neither come into being nor pass away, either in itself or through any natural cause. Synthetic a priori propositions of this type can never be proven in themselves, but only in relation to things as objects of a possible experience.

§48

If, therefore, we want to infer the persistence of the soul from the concept of the soul as substance, this can be valid of the soul only for the purpose of possible experience, and not of the soul as a thing in itself and beyond all possible experience. But life is the subjective condition of all our possible experience: consequently, only the persistence of the soul during life can be inferred, for the death of a human being is the end of all experience as far as the soul as an object of experience is concerned (provided that the opposite has not been proven, which is the very matter in question). Therefore the persistence of the soul can be proven only during the life of a human being (which proof will doubtless be granted us), but not after death (which is actually our concern) - and indeed then only from the universal ground that the concept of substance, insofar as it is to be considered as connected necessarily with the concept of persistence,

^a The original has an asterisk here, with no corresponding note.

can be so connected only in accordance with a principle of possible experience, and hence only for the purpose of the latter.*

§49

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That our outer perceptions not only do correspond to something real^b outside us, but must so correspond, also can never be proven as a connection of things in themselves, but can well be proven for the purpose of experience. This is as much as to say: it can very well be proven that there is something outside us of an empirical kind, and hence as appearance in space; for we are not concerned with objects other than those which belong to a possible experience, just because such objects cannot be given to us in any experience and therefore are nothing for us. Outside me empirically is that which is intuited in space; and because this space, together with all the appearances it contains, belongs to those representations whose connection according to laws of experience proves their objective truth, just as the connection of the appearances of the inner sense proves the reality of my soul (as an object of inner sense), it follows that I am, by means of outer appearances, just as conscious of the reality of bodies

* It is in fact quite remarkable that metaphysicians have always slid so blithely over the principle of the persistence of substances, without ever attempting to prove it; doubtless because they found themselves completely forsaken by all grounds of proof as soon as they commenced with the concept of substance. Common sense, being well aware that without this assumption no unification of perceptions in an experience would be possible, made up for this defect with a postulate; for it could never extract this principle from experience itself, partly because experience cannot follow the materials (substances) through all their alterations and dissolutions far enough to be able to find matter always undiminished, partly because the principle contains necessity, which is always the sign of an a priori principle." But the metaphysicians applied this principle confidently to the concept of the soul as a substance and inferred its necessary continuation after the death of a human being (principally because the simplicity of this substance, which had been inferred from the indivisibility of consciousness, saved it from destruction through dissolution). Had they found the true source of this principle, which however would have required far deeper investigations than they ever wanted to start, then they would have seen: that this law of the persistence of substances is granted only for the purpose of experience and therefore can hold good only for things insofar as they are to be cognized in experience and connected with other things, but never for things irrespective of all possible experience, hence not for the soul after death.

a Princips

b Wirkliches

^c Wirklichkeit

as outer appearances in space, as I am, by means of inner experience, conscious of the existence of my soul in time - which soul I cognize^a only as an object of inner sense through the appearances constituting an inner state, and whose being as it is in itself, which underlies these appearances, is unknown to me. Cartesian idealism therefore distinguishes only outer experience from dream, and lawfulness as a criterion of the truth of the former from the disorder and false illusion of the latter.^c In both cases it presupposes space and time as conditions for the existence of objects and merely asks whether the objects of the outer senses are actually to be found in the space in which we put them while awake, in the way that the object of inner sense, the soul, actually is in time, i.e., whether experience carries with itself sure criteria to distinguish it from imagination. Here the doubt can easily be removed, and we always remove it in ordinary life by investigating the connection of appearances in both space and time according to universal laws of experience, and if the representation of outer things consistently agrees therewith, we cannot doubt that those things should not constitute truthful experience. Because appearances are considered as appearances only in accordance with their connection within experience, material idealism can therefore very easily be removed; and it is just as secure an experience that bodies exist outside us (in space) as that I myself exist in accordance with the representation of inner sense (in time) - for the concept: outside us, signifies only existence in space. Since, however, the I in the proposition I am does not signify merely the object of inner intuition (in time) but also the subject of consciousness, just as body does not signify merely outer intuition (in space) but also the thing in itself that underlies this appearance, accordingly the question of whether bodies (as appearances of outer sense) exist outside my thought as bodies in naturee can without hesitation be answered negatively; but here matters do not stand otherwise for the question of 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 question must also be answered negatively. In this way everything is, when reduced to its true signification, conclusive and certain. Formal idealism (elsewhere called transcendental idealism by me) actually destroys f material or Cartesian idealism. For if space is nothing but a form of my sensibility, then it is, as a representation in me, just as real^a as I am myself, and the only question remaining concerns the empirical truth of the appearances in this space. If this is not the case, but rather space and the appearances in it are something existing outside us, then all the criteria of experience can never, outside our perception, prove the reality of these objects outside us.

§50 II. Cosmological ideas (*Critique*, pp. 405 ff.)⁷¹

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This product of pure reason in its transcendent use is its most remarkable phenomenon, and it works the most strongly of all to awaken philosophy from its dogmatic slumber, and to prompt it toward the difficult business of the critique of reason itself.

I call this idea cosmological because it always finds its object only in the sensible world and needs no other world than that whose object^b is an object^c for the senses, and so, thus far, is immanent^d and not transcendent, and therefore, up to this point, is not yet an idea; by contrast, to think of the soul as a simple substance already amounts to thinking of it as an object (the simple) the likes of which cannot be represented at all to the senses. Notwithstanding all that, the cosmological idea expands the connection of the conditioned with its condition (be it mathematical or dynamic) so greatly that experience can never match it, and therefore it is, with respect to this point, always an idea whose object can never be adequately given in any experience whatever.

§51

In the first place, the usefulness of a system of categories is here revealed so clearly and unmistakably that even if there were no further grounds of proof of that system, this alone would sufficiently establish their indispensability in the system of pure reason. There are no more than four such transcendental^e ideas, as many as there are classes of categories; in each of them, however, they refer only to the absolute completeness of the series of conditions for a given conditioned. In accordance with these cosmological ideas there are also only four kinds of dialectical assertions of pure reason, which show themselves to be dialectical because for each such assertion a contradictory one stands in opposition in accordance

^a Reading erkenne for erkennen, with Vorländer.

b Wesen an sich selbst

der letzteren, plural for dreams; rejecting the emendation to des letztern in Ak.

wirklich

e Placing in der Natur after ausser meinen Gedanken, with Vorländer, as opposed to its original placement after ohne Bedenken.

f aufhebt

a wirklich

^b Gegenstand

^c Object

d einheimisch

Reading transscendentalen for transscendenten, as suggested by Vorländer, and in accordance with §§45, 55-7, and 60.

with equally plausible principles of pure reason, a conflict that cannot be avoided by any metaphysical art of the most subtle distinctions, but that requires the philosopher to return to the first sources of pure reason itself. This antinomy, by no means arbitrarily contrived, but grounded in the nature of human reason and so unavoidable and neverending, contains the following four theses together with their antitheses.^a

Thesis
The world has, as to time and space,
a beginning (a boundary).

Antithesis
The world is, as to time and space,
infinite.

Thesis
Everything in the world is constituted out of the simple.

Antithesis
There is nothing simple,
but everything is
composite.

Thesis
There exist in the world causes through freedom.

Antithesis
There is no freedom,
but everything is
nature.

Thesis

In the series of causes in the world there is a necessary being.

Antithesis

There is nothing necessary in this series, but in it everything is contingent.

§52a

Here is now the strangest phenomenon of human reason, no other example of which can be pointed to in any of its other uses. If (as normally happens) we think of the appearances of the sensible world as things in themselves, if we take the principles of their connection to be principles that are universally valid for things in themselves and not merely for experience (as is just as common, nay, is unavoidable without our

^a Sätze and Gegensätzen; in the Kritik, assertion and counterassertion are labelled These and Antithese, terms that are used below, §§52b, 52c.

b Stress added to the last line of the thesis and antithesis, to parallel the typography in 2, 3, and 4.

Critique): then an unexpected conflict comes to light, which can never be settled in the usual dogmatic manner, since both thesis and antithesis can be established through equally evident, clear, and incontestable proofs – for I will vouch for the correctness of all these proofs – and therefore reason is seen to be divided against itself, a situation that makes the skeptic rejoice, but must make the critical philosopher pensive and uneasy.

§52b

One can tinker around with metaphysics in sundry ways without even suspecting that one might be venturing into untruth. For if only we do not contradict ourselves – something that is indeed entirely possible with synthetic, though completely fanciful, propositions – then we can never be refuted by experience in all such cases where the concepts we connect are mere ideas, which can by no means be given (in their entire content) in experience. For how would we decide through experience: Whether the world has existed from eternity, or has a beginning? Whether matter is infinitely divisible, or is constituted out of simple parts? Concepts such as these cannot be given in any experience (even the greatest possible), and so the falsity of the affirmative or negative thesis cannot be discovered through that touchstone.

The single possible case in which reason would reveal (against its will) its secret dialectic (which it falsely passes off as dogmatics) would be that in which it based an assertion on a universally acknowledged principle, and, with the greatest propriety in the mode of inference, derived the direct opposite from another equally accredited principle. Now this case is here actual, and indeed is so with respect to four natural ideas of reason, from which there arise – each with proper consistency and from universally acknowledged principles – four assertions on one side and just as many counterassertions on the other, thereby revealing the dialectical illusion of pure reason in the use of these principles, which otherwise would have had to remain forever hidden.

Here is, therefore, a decisive test, which must necessarily disclose to us a fault that lies hidden in the presuppositions of reason.* Of two mutually

* I therefore desire that the critical reader concern himself mainly with this antinomy, because nature itself seems to have set it up to make reason suspicious in its bold claims and to force a self-examination. I promise to answer for each proof I have given of both thesis and antithesis, and thereby to establish the certainty of the inevitable antinomy of reason. If the reader is induced, through this strange phenomenon, to reexamine the presupposition that underlies it, he will then feel constrained to investigate more deeply with me the primary foundation of all cognition through pure reason.

contradictory propositions, both cannot be false save when the concept underlying them both is itself contradictory; e.g., the two propositions: a square circle is round, and: a square circle is not round, are both false. For, as regards the first, it is false that the aforementioned circle is round, since it is square; but it is also false that it is not round, i.e., has corners, since it is a circle. The logical mark of the impossibility of a concept consists, then, in this: that under the presupposition of this concept, two contradictory propositions would be false simultaneously; and since between these two no third proposition can be thought, through this concept *nothing at all* is thought.

§52C

Now underlying the first two antinomies, which I call mathematical because they concern adding together or dividing up the homogeneous, is a contradictory concept of this type; and by this means I explain how it comes about that thesis and antithesis are false in both.

If I speak of objects in time and space, I am not speaking of things in themselves (since I know nothing of them), but only of things in appearance, i.e., of experience as a distinct mode of cognition of objects that is granted to human beings alone. I must not say of that which I think in space or time: that it is in itself in space and time, independent of this thought of mine; for then I would contradict myself, since space and time, together with the appearances in them, are nothing existing in themselves and outside my representations, but are themselves only modes of representation, and it is patently contradictory to say of a mere mode of representation that it also exists outside our representation. The objects of the senses therefore exist only in experience; by contrast, to grant them a self-subsistent existence of their own, without experience or prior to it, is as much as to imagine that experience is also real without experience or prior to it.

Now if I ask about the magnitude of the world with respect to space and time, for all of my concepts it is just as impossible to assert that it is infinite as that it is finite. For neither of these can be contained in experience, because it is not possible to have experience either of an *infinite* space or infinitely flowing time, or of a bounding of the world by an empty space or by an earlier, empty time; these are only ideas. Therefore the magnitude of the world, determined one way or the other, must

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lie in itself, apart from all experience. But this contradicts the concept of a sensible world, which is merely a sum total of appearance, whose existence and connection takes place only in representation, namely in experience, since it is not a thing in itself, but is itself nothing but a kind of representation. From this it follows that, since the concept of a sensible world existing for itself is self-contradictory, any solution to this problem as to its magnitude will always be false, whether the attempted solution be affirmative or negative.

The same holds for the second antinomy, which concerns dividing up the appearances. For these appearances are mere representations, and the parts exist only in the representation of them, hence in the dividing, i.e., in a possible experience in which they are given, and the dividing therefore proceeds only as far as possible experience reaches. To assume that an appearance, e.g., of a body, contains within itself, before all experience, all of the parts to which possible experience can ever attain, means: to give to a mere appearance, which can exist only in experience, at the same time an existence of its own previous to experience, which is to say: that mere representations are present before they are encountered in the representational power, which contradicts itself and hence also contradicts every solution to this misunderstood problem, whether that solution asserts that bodies in themselves consist of infinitely many parts or of a finite number of simple parts.

§53

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In the first (mathematical) class of antinomy, the falsity of the presupposition consisted in the following: that something self-contradictory (namely, appearance as a thing in itself)^b would be represented as being unifiable in a concept. But regarding the second, namely the dynamical, class of antinomy, the falsity of the presupposition consists in this: that something that is unifiable is represented as contradictory; consequently, while in the first case both of the mutually opposing assertions were false, here on the contrary the assertions, which are set in opposition to one another through mere misunderstanding, can both be true.

Specifically, mathematical combination necessarily presupposes the homogeneity of the things combined (in the concept of magnitude), but dynamical connection does not require this at all. If it is a question of the magnitude of something extended, all parts must be homogeneous among themselves and with the whole; by contrast, in the connection of cause and effect homogeneity can indeed be found, but is not necessary;

^a Reading allgemein for allgemeinen, with Ak.

b Thesis

^c Antithesis

d Reading noch for nach, with Ak.

a Sache an sich

^b Sache an sich selbst

for the concept of causality (whereby through one thing, something completely different from it is posited) at least does not require it.

If the objects of the sensible world were taken for things in themselves, and the previously stated natural laws for laws of things in themselves, contradiction would be unavoidable. In the same way, if the subject of freedom were represented, like the other objects, as a mere appearance, contradiction could again not be avoided, for the same thing would be simultaneously affirmed and denied of the same object in the same sense. But if natural necessity is referred only to appearances and freedom only to things in themselves, then no contradiction arises if both kinds of causality are assumed or conceded equally, however difficult or impossible it may be to make causality of the latter kind conceivable.

Within appearance, every effect is an event, or something that happens in time; the effect must, in accordance with the universal law of nature, be preceded by a determination of the causality of its cause (a state of the cause), from which the effect follows in accordance with a constant law. But this determination of the cause to causality must also be something that occurs or takes place; the cause must have begun to act, for otherwise no sequence in time could be thought between it and the effect. Both the effect and the causality of the cause would have always existed. Therefore the determination of the cause to act must also have arisen among the appearances, and so must, like its effect, be an event, which again must have its cause, and so on, and hence natural necessity must be the condition in accordance with which efficient causes are determined. Should, by contrast, freedom be a property of certain causes of appearances, then that freedom must, in relation to the appearances as events, be a faculty of starting those events from itself (sponte),4 i.e., without the causality of the cause itself having to begin, and hence without need for any other ground to determine its beginning. But then the cause, as to its causality, would not have to be subject to temporal determinations of its state, i.e., would not have to be appearance at all, i.e., would have to be taken for a thing in itself, and only the effects would have to be taken for appearances.* If this sort of influence of intelligible beings on appearances

* The idea of freedom has its place solely in the relation of the *intellectual*, b as cause, to the *appearance*, as effect. Therefore we cannot bestow freedom upon matter in consideration of the unceasing activity by which it fills its space, even though this activity occurs through an inner principle. We can just as little find any concept of freedom to fit a purely intelligible being, e.g., God, insofar as his action is immanent. For his action, although independent of causes determining it from outside, nevertheless is determined in his eternal reason, hence in the divine *nature*. Only if *something* should *begin* through an action, hence the effect be found in the time series, and so in the sensible world (e.g., the beginning of the world), does the question arise of whether the causality of the cause must itself also have a beginning, or whether the cause

can be thought without contradiction, then natural necessity will indeed attach to every connection of cause and effect in the sensible world, and yet that cause which is itself not an appearance (though it underlies appearance) will still be entitled to freedom, and therefore nature and freedom will be attributable without contradiction to the very same thing, but in different respects, in the one case as appearance, in the other as a thing in itself.

We have in us a faculty that not only stands in connection with its subjectively determining grounds, which are the natural causes of its actions - and thus far is the faculty of a being which itself belongs to appearances - but that also is related to objective grounds that are mere ideas, insofar as these ideas can determine this faculty, a connection that is expressed by ought. This faculty is called reason, and insofar as we are considering a being (the human being) solely as regards this objectively determinable reason, this being cannot be considered as a being of the senses; rather, the aforesaid property is the property of a thing in itself, and the possibility of that property - namely, how the ought, which has never yet happened, can determine the activity of this being and can be the cause of actions whose effect is an appearance in the sensible world we cannot comprehend at all. Yet the casuality of reason with respect to effects in the sensible world would nonetheless be freedom, insofar as objective grounds, which are themselves ideas, are taken to be determining with respect to that causality. For the action of that causality would in that case not depend on any subjective, hence also not on any temporal conditions, and would therefore also not depend on the natural law that serves to determine those conditions, because grounds of reason provide the rule for actions universally, from principles, without influence from the circumstances of time or place.

What I adduce here counts only as an example, for intelligibility, and does not belong necessarily to our question, which must be decided from mere concepts independently of properties that we find in the actual world.

I can now say without contradiction: all actions of rational beings, insofar as they are appearances (are encountered in some experience or

can originate an effect without its causality itself having a 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, since I have explained freedom as the faculty to begin an event by oneself, I have exactly hit that concept which is the problem of metaphysics.

[&]quot;spontaneously"

^b des Intellektuellen

c Sollen

other), are subject to natural necessity; but the very same actions, with respect only to the rational subject and its faculty of acting in accordance with bare reason, are free. What, then, is required for natural necessity? Nothing more than the determinability of every event in the sensible world according to constant laws, and therefore a relation to a cause within appearance; whereby the underlying thing in itself and its causality remain unknown. But I say: the law of nature remains, whether the rational being be a cause of effects in the sensible world through reason and hence through freedom, or whether that being does not determine such effects through rational grounds. For if the first is the case, the action takes place according to maxims whose effect within appearance will always conform to constant laws: if the second is the case, and the action does not take place according to principles of reason, then it is subject to the empirical laws of sensibility, and in both cases the effects are connected according to constant laws; but we require nothing more for natural necessity, and indeed know nothing more of it. In the first case, however, reason is the cause of these natural laws and is therefore free, in the second case the effects flow according to mere natural laws of sensibility, because reason exercises no influence on them; but, because of this, reason is not itself determined by sensibility (which is impossible), and it is therefore also free in this case. Therefore freedom does not impede the natural law of appearances, any more than this law interferes with the freedom of the practical use of reason, a use that stands in connection with things in themselves as determining grounds.

In this way practical freedom - namely, that freedom in which reason has causality in accordance with objective determining grounds - is rescued, without natural necessity suffering the least harm with respect to the very same effects, as appearances. This can also help elucidate what we have had to say about transcendental freedom and its unification with natural necessity (in the same subject, but not taken in one and the same respect). For, as regards transcendental freedom, any beginning of an action of a being out of objective causes is always, with respect to these determining grounds, a first beginning, although the same action is, in the series of appearances, only a subalternate beginning, which has to be preceded by a state of the cause which determines that cause, and which is itself determined in the same way by an immediately preceding cause: so that in rational beings (or in general in any beings, provided that their causality is determined in them as things in themselves) one can conceive of a faculty for beginning a series of states spontaneously, without falling into contradiction with the laws of nature. For the relation of an action to the objective grounds of reason is not a temporal relation; here, that which determines the causality does not precede the action as regards time, because such determining grounds do not represent the relation of objects to the senses (and so to causes within appearance), but rather they represent determining causes as things in themselves, which are not subject to temporal conditions. Hence the action can be regarded as a first beginning with respect to the causality of reason, but can nonetheless at the same time be seen as a mere subordinated beginning with respect to the series of appearances, and can without contradiction be considered in the former respect as free, in the latter (since the action is mere appearance) as subject to natural necessity.

As regards the *fourth* antinomy, it is removed in a similar manner as was the conflict of reason with itself in the third. For if only the cause in the appearances is distinguished from the cause of the appearances insofar as the latter cause can be thought as a thing in itself, then these two propositions can very well exist side by side, as follows: that there occurs no cause of the sensible world (in accordance with similar laws of causality) whose existence is absolutely necessary, as also on the other side: that this world is nonetheless connected with a necessary being as its cause (but of another kind and according to another law) – the inconsistency of these two propositions resting solely on the mistake of extending what holds merely for appearances to things in themselves, and in general of mixing the two of these up into one concept.

§54

This then is the statement and solution of the whole antinomy in which reason finds itself entangled in the application of its principles^b to the sensible world, and of which the former (the mere statement) even by itself would already be of considerable benefit toward a knowledge^c of human reason, even if the solution of this conflict should not yet fully satisfy^d the reader, who has here to combat a natural illusion that has only recently been presented to him as such, after he had hitherto always taken that illusion for the truth. One consequence of all this is, indeed, unavoidable; namely, that since it is completely impossible to escape from this conflict of reason with itself as long as the objects of the sensible world are taken for things in themselves^e – and not for what they in fact are, that is, for mere appearances – the reader is obliged, for that reason, to take up once more the deduction of all our cognition a priori (and the examination of that deduction which I have provided), in order to come to a decision about it. For the present I do not require more; for

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⁴ Reading ähnliche for die ähnliche, with Vorländer.

^b Principien

⁶ Kenntniss

^d Reading noch nicht völlig befriedigen for hiedurch noch nicht völlig befriedigt werden, with Vorländer.

^e Sachen an sich selbst

if, through this pursuit, he has first thought himself deeply enough into the nature of pure reason, then the concepts by means of which alone the solution to this conflict of reason is possible will already be familiar to him, a circumstance without which I cannot expect full approbation from even the most attentive reader.

§55 III. Theological idea (*Critique*, pp. 571ff.)⁷²

The third transcendental idea, which provides material for the most important among all the uses of reason – but one that, if pursued merely speculatively, is overreaching (transcendent) and thereby dialectical – is the ideal of pure reason. Here reason does not, as with the psychological and the cosmological idea, start from experience and become seduced by the ascending sequence of grounds into aspiring, if possible, to absolute completeness in their series, but instead breaks off entirely from experience and descends from bare concepts of what would constitute the absolute completeness of a thing in general – and so by means of the idea of a supremely perfect first being^a - to determination of the possibility, hence the reality, of all other things; in consequence, here the bare presupposition of a being that, although not in the series of experiences, is nonetheless thought on behalf of experience, for the sake of comprehensibility in the connection, ordering, and unity of that experience – i.e., the *idea* – is easier to distinguish from the concept of the understanding than in the previous cases. Here therefore the dialectical illusion, which arises from our taking the subjective conditions of our thinking for objective conditions of things themselves^b and our taking a hypothesis that is necessary for the satisfaction of our reason for a dogma, is easily exposed, and I therefore need mention nothing more about the presumptions of transcendental theology, since what the Critique says about them is clear, evident, and decisive.

§56 General Note to the Transcendental Ideas

The objects that are given to us through experience are incomprehensible to us in many respects, and there are many questions to which natural law carries us, which, if pursued to a certain height (yet always in conformity with those laws) cannot be solved at all; e.g., how

pieces of matter attract one another. But if we completely abandon nature, or transcend^a all possible experience in advancing the connection of nature and so lose ourselves in mere ideas, then we are unable to say that the object^b is incomprehensible to us and that the nature of things presents us with unsolvable problems; for then we are not concerned with nature or in general with objects' that are given, but merely with concepts that have their origin solely in our reason, and with mere beings of thought, with respect to which all problems, which must originate from the concepts of those very beings, can be solved, since reason certainly can and must be held fully accountable for its own proceedings.* Because the psychological, d cosmological, and theological ideas are nothing but pure concepts of reason, which cannot be given in any experience, the questions that reason puts before us with respect to them are not set for us through objects, but rather through mere maxims of reason for the sake of its self-satisfaction, and these questions must one and all be capable of sufficient answer - which occurs by its being shown that they are principles for bringing the use of our understanding into thoroughgoing harmony, completeness, and synthetic unity, and to that extent are valid only for experience, though in the totality of that experience. But although an absolute totality of experience is not possible, nonetheless the idea of a totality of cognition according to principles in general is what alone can provide it with a special kind of unity, namely that of a system, without which unity our cognition is nothing but piecework and cannot be used for the highest end (which is nothing other than the system of all ends); and here I mean not only the practical use of reason, but also the highest end of its speculative use.

^a höchst vollkommenen Urwesens

b der Sachen selbst

^{*} Herr Platner in his *Aphorisms* therefore says with astuteness (§§728–729): "If reason is a criterion, then there cannot possibly be a concept that is incomprehensible to human reason. – Only in the actual does incomprehensibility have a place. Here the incomprehensibility arises from the inadequacy of acquired ideas."⁷³ – It therefore only sounds paradoxical, and is otherwise not strange to say: that in nature much is incomprehensible to us (e.g., the procreative faculty), but if we rise still higher and even go out beyond nature, then once again all will be comprehensible to us; for then we entirely leave behind the *objects* that can be given to us, and concern ourselves merely with ideas, with respect to which we can very well comprehend the law that reason thereby prescribes to the understanding for its use in experience, since that law is reason's own product.

^a übersteigen

b Gegenstand

^c Objecten

d Reading psychologischen for physiologische, with Ak.

Therefore the transcendental ideas express the peculiar vocation of reason, namely to be a principle^a of the systematic unity of the use of the understanding. But if one looks upon this unity of mode of cognition as if it were inhering in the object of cognition, if one takes that which really is only regulative to be constitutive, and becomes convinced that by means of these ideas one's knowledge^b can be expanded far beyond all possible experience, hence can be expanded transcendently, even though this unity serves only to bring experience in itself as near as possible to completeness (i.e., to have its advance constrained by nothing that cannot belong to experience), then this is a mere misunderstanding in judging the true vocation of our reason and its principles, and it is a dialectic, which partly confounds the use of reason in experience, and partly divides reason against itself.

Conclusion

on Determining the Boundary of Pure Reason §57

After the extremely clear proofs we have given above, it would be an absurdity for us, with respect to any object, to hope to cognize more than belongs to a possible experience of it, or for us, with respect to any thing that we assume not to be an object of possible experience, to claim even the least cognition for determining it according to its nature as it is in itself; for by what means will we reach this determination, since time, space, and all the concepts of the understanding, and especially the concepts drawn from empirical intuition or *perception* in the sensible world, do not and cannot have any other use than merely to make experience possible, and if we relax this condition even for the pure concepts of the understanding, they then determine no object whatsoever, and have no significance anywhere.

But, on the other hand, it would be an even greater absurdity for us not to allow any things in themselves at all, or for us to want^c to pass off our experience for the only possible mode of cognition of things – hence our intuition in space and time for the only possible intuition and our discursive understanding for the archetype of every possible understanding – and so to want to take principles^d of the possibility of experience for universal conditions on things in themselves.

Our principles,^a which limit the use of reason to possible experience alone, could accordingly themselves become transcendent and could nass off the limits of our reason for limits on the possibility of things themselves (for which Hume's Dialogues⁷⁴ can serve as an example), if a painstaking critique did not both guard the boundaries of our reason even with respect to its empirical use, and set a limit to its pretensions. Skepticism originally arose from metaphysics and its unpoliced dialectic. At first this skepticism wanted, solely for the benefit of the use of reason in experience, to portray everything that surpasses this use as empty and deceitful; but gradually, as it came to be noticed that it was the very same a priori principles^b which are employed in experience that, unnoticed, had led still further than experience reaches - and had done so, as it seemed, with the very same right - then even the principles of experience began to be doubted. There was no real trouble with this, for sound common sense' will always assert its rights in this domain; but there did arise a particular confusion in science, which cannot determine how far (and why only that far and not further) reason is to be trusted, and this confusion can be remedied and all future relapses prevented only through a formal determination, derived from principles, of the boundaries for the use of our reason.

It is true: we cannot provide, beyond all possible experience, any determinate concept of what things in themselves may be. But we are nevertheless not free to hold back entirely in the face of inquiries about those things; for experience never fully satisfies reason; it directs us ever further back in answering questions and leaves us unsatisfied as regards their full elucidation, as everyone can sufficiently observe in the dialectic of pure reason, which for this very reason has its good subjective ground. Who can bear being brought, as regards the nature of our soul, both to the point of a clear consciousness of the subject and to the conviction that the appearances of that subject cannot be explained materialistically, without asking what then the soul really is, and, if no concept of experience suffices thereto, without perchance adopting a concept of reason (that of a simple immaterial^d being) just for this purpose, although we can by no means prove the objective reality of that concept? Who can satisfy himself with mere cognition through experience in all the cosmological questions, of the duration and size of the world, of freedom or natural necessity, since, wherever we may begin, any answer given according to principles of experience always begets a new question which also

⁴ Princips

^b Kenntniss

^c Reading wollten for wollte, with Ak.

^d Principien

^a Principien

^b Grundsätze

^c gesunde Verstand

d Reading immateriellen for materiellen, with Ak.

^e Reading Erfahrungsgrundsätzen for Erfahrungsgrundgesetzen, with Ak.

requires an answer, and for that reason clearly proves the insufficiency of all physical modes of explanation for the satisfaction of reason? Finally, who cannot see, from the throughgoing contingency and dependency of everything that he might think or assume according to principles of experience, the impossibility of stopping with these, and who does not feel compelled, regardless of all prohibition against losing himself in transcendent ideas, nevertheless to look for peace and satisfaction beyond all concepts that he can justify through experience, in the concept of a being the idea of which indeed cannot in itself be understood as regards possibility – though it cannot be refuted either, because it pertains to a mere being of the understanding – an idea without which, however, reason would always have to remain unsatisfied?^a

Boundaries^b (in extended things) always presuppose a space that is found outside a certain fixed location, and that encloses that location; limits^c require nothing of the kind, but are mere negations that affect a magnitude insofar as it does not possess 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 those things and is limited to appearances alone.

As long as reason's cognition is homogeneous, no determinate boundaries can be thought for it. In mathematics and natural science, human reason recognizes limits but not boundaries, i.e., it indeed recognizes that something lies beyond it to which it can never reach, but not that it would itself at any point ever complete its inner progression. The expansion of insight in mathematics, and the possibility of ever-new inventions, goes to infinity; so too does the discovery of new properties in nature (new forces and laws) through continued experience and the unification of that experience by reason. But limits here are nonetheless unmistakable, for mathematics refers only to appearances, and that which cannot be an object of sensory intuition, like the concepts of metaphysics and morals, lies entirely outside its sphere, and it can never lead there; but it also has no need whatsoever for such concepts. There is therefore no continuous progress and advancement toward those sciences, or any point or line of contact, as it were. Natural science will never reveal to us the inside of things, i.e., that which is not appearance but can nonetheless serve as the highest ground of explanation for the appearances; but it does not need this for its physical explanations; nay, if such were offered to it from elsewhere (e.g., the influence of immaterial beings), natural science should indeed reject it and ought by no means bring it into the progression of its explanations,

^a Final question mark added, with Vorländer.

but should always base its explanations only on that which can belong to experience as an object of the senses and which can be brought into connection with our actual perceptions in accordance with laws of experience.

But metaphysics, in the dialectical endeavors of pure reason (which are not initiated arbitrarily or wantonly, but toward which the nature of reason itself drives), does lead us to the boundaries; and the transcendental ideas, just because they cannot be avoided and yet will never be realized, serve not only actually to show us the boundaries of reason's pure use, but also to show us the way to determine such boundaries; and that too is the end and use of this natural predisposition of our reason, which bore metaphysics as its favorite child, whose procreation (as with any other in the world) is to be ascribed not to chance accident but to an original seed that is wisely organized toward great ends. For metaphysics, perhaps more than any other science, is, as regards its fundamentals, placed in us by nature itself, and cannot at all be seen as the product of an arbitrary choice, or as an accidental extension from the progression of experiences (it wholly separates itself from those experiences).

Reason, through all of its concepts and laws of the understanding, which it finds to be adequate for empirical use, and so adequate within the sensible world, nonetheless does not thereby find satisfaction for itself; for, as a result of questions that keep recurring to infinity, it is denied all hope of completely answering those questions. The transcendental ideas, which have such completion as their aim, are such problems for reason. Now reason clearly sees: that the sensible world could not contain this completion, any more than could therefore all of the concepts that serve solely for understanding that world: space and time, and everything that we have put forward under the name of the pure concepts of the understanding. The sensible world is nothing but a chain of appearances connected in accordance with universal laws, which therefore has no existence for itself; it truly is not the thing in itself, and therefore it necessarily refers to that which contains the ground of those appearances, to beings that can be cognized not merely as appearances, a but as things in themselves. Only in the cognition of the latter can reason hope to see its desire for completeness in the progression from the conditioned to its conditions satisfied for once.

Above (§§33, 34) we noted limits of reason with respect to all cognition of mere beings of thought; now, since the transcendental ideas nevertheless make the progression up to these limits necessary for us, and have therefore led us,^b as it were, up to the contiguity of the filled

^b Grenzen

^c Schranken

⁴ Reading Erscheinungen for Erscheinung (here and just previously), with Vorländer.

^b Reading uns for nur, with Vorländer.

space (of experience) with empty space (of which we can know nothing the noumena), we can also determine the boundaries of pure reason; for in all boundaries there is something positive (e.g., a surface is the boundary of corporeal space, yet is nonetheless itself a space; a line is a space, which is the boundary of a surface; a point is the boundary of a line, yet is nonetheless a locus in space), whereas limits contain mere negations. The limits announced in the cited sections are still not enough after we have found that something lies beyond them (although we will never cognize what that something may be in itself). For the question now arises: How does our reason cope with this connection of that with which we are acquainted to that with which we are not acquainted, and never will be? Here is a real connection of the known to a wholly unknown (which will always remain so), and even if the unknown should not become the least bit better known - as is not in fact to be hoped the concept of this connection must still be capable of being determined and brought to clarity.

We should, then, think for ourselves an immaterial being, an intelligible world, and a highest of all beings (all noumena), because only in these things, as things in themselves, does reason find completion and satisfaction, which it can never hope to find in the derivation of the appearances from the homogeneous grounds of those appearances; and we should think such things for ourselves because the appearances actually do relate to something distinct from them (and so entirely heterogeneous), in that appearances always presuppose a thing in itself, and so provide notice of such a thing, whether or not it can be cognized more closely.

Now since we can, however, never cognize these intelligible beings according to what they may be in themselves, i.e., determinately – though we must nonetheless assume such beings in relation to the sensible world, and connect them with it through reason – we can still at least think this connection by means of such concepts as express the relation of those beings to the sensible world. For, if we think an intelligible being through nothing but pure concepts of the understanding, we really think nothing determinate thereby, and so our concept is without significance; if we think it through properties borrowed from the sensible world, it is no longer an intelligible being: it is thought as one of the phenomena and belongs to the sensible world. We will take an example from the concept of the supreme being.

The *deistic* concept is a wholly pure concept of reason, which however represents merely a thing that contains every reality, without being able to determine a single one of them, since for that an example would have

to be borrowed from the sensible world, in which case I would always have to do only with an object of the senses, and not with something completely heterogeneous which cannot be an object of the senses at all. For I would, for instance, attribute understanding to it; but I have no concept whatsoever of any understanding save one like my own, that is, one such that intuitions must be given to it through the senses, and that busies itself with bringing them under rules for the unity of consciousness. But then the elements of my concept would still lie within appearance; I was, however, forced by the inadequacy of the appearances to go beyond them, to the concept of a being that is in no way dependent on appearances nor bound up with them as conditions for its determination. If, however, I separate understanding from sensibility, in order to have a pure understanding, then nothing but the mere form of thinking, without intuition, is left; through which, by itself, I cannot cognize anything determinate, hence cannot cognize any object. To that end I would have to think to myself a different understanding, which intuits objects,75 of which, however, I do not have the least concept, since the human understanding is discursive and can cognize only by means of universal concepts. The same thing happens to me if I attribute a will to the supreme being: For I possess this concept only by drawing it from my inner experience, where, however, mya dependence on satisfaction through objects whose existence we need, and so sensibility, is the basis - which completely contradicts the pure concept of a supreme being.

Hume's objections to deism are weak and always concern the grounds of proof but never the thesis of the deistic assertion itself. But with respect to theism, which is supposed to arise through a closer determination of our (in deism, merely transcendent) concept of a supreme being, they are very strong, and, depending on how this concept has been framed, they are in certain cases (in fact, in all the usual ones) irrefutable. Hume always holds to this: that through the mere concept of a first being to which we attribute none but ontological predicates (eternity, omnipresence, omnipotence), we actually do not think anything determinate at all; rather, properties would have to be added that can yield a concept in concreto: it is not enough to say: this being is a cause, rather we need to say how its causality is constituted, e.g., by understanding and willing - and here begin Hume's attacks on the matter in question, namely on theism, whereas he had previously assaulted only the grounds of proof for deism, an assault that carries no special danger with it. His dangerous arguments relate wholly to anthropomorphism, of which he holds that it is inseparable from theism and makes theism

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^a Sache an sich selbst

^a Rejecting various emendations recorded by Vorländer.

self-contradictory, but that if it is eliminated, theism falls with it and nothing but deism remains – from which nothing can be made, which can be of no use to us, and can in no way serve as a foundation for religion and morals. If this unavoidability of anthropomorphism were certain, then the proofs for the existence of a supreme being might be what they will, and might all be granted, and still the concept of this being could never be determined by us without our becoming entangled in contradictions.

If we combine the injunction to avoid all transcendent judgments of pure reason with the apparently conflicting command to proceed to concepts that lie beyond the field of immanent (empirical) use, we become aware that both can subsist together, but only directly on the boundary of all permitted use of reason – for this boundary belongs just as much to the field of experience as to that of beings of thought – and we are thereby at the same time taught how those remarkable ideas serve solely for determining the boundary of human reason: that is, we are taught, on the one hand, not to extend cognition from experience without bound, so that nothing at all remains for us to cognize except merely the world, and, on the other, nevertheless not to go beyond the boundary of experience and to want to judge of things outside that boundary as things in themselves.

But we hold ourselves to this boundary if we limit our judgment merely to the relation that the world may have to a being whose concept itself lies outside all cognition that we can attain within the world. For we then do not attribute to the supreme being any of the properties in themselves by which we think the objects of experience, and we thereby avoid dogmatic anthropomorphism; but we attribute those properties, nonetheless, to the relation of this being to the world, and allow ourselves a symbolic anthropomorphism, which in fact concerns only language and not the object itself.

If I say that we are compelled to look upon the world as if it were the work of a supreme understanding and will, I actually say nothing more than: in the way that a watch, a ship, and a regiment are related to an artisan, a builder, and a commander, the sensible world (or everything that makes up the basis of this sum total of appearances) is related to the unknown – which I do not thereby cognize according to what it is in itself, but only according to what it is for me, that is, with respect to the world of which I am a part.

§58

This type of cognition is cognition according to analogy, which surely does not signify, as the word is usually taken, an imperfect similarity between

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two things, but rather a perfect similarity between two relations in wholly dissimilar things.* By means of this analogy there still remains a concept of the supreme being sufficiently determinate for us, though we have omitted everything that could have determined this concept unconditionally and in itself; for we determine the concept only with respect to the world and hence with respect to us, and we have no need of more. The attacks that Hume makes against those who want to determine this concept absolutely – since they borrow the materials for this determination from themselves and from the world – do not touch us; he also cannot reproach us that nothing whatsoever would remain for us if objective anthropomorphism were subtracted from the concept of the supreme being.

For if one only grants us, at the outset, the deistic concept of a first being as a necessary hypothesis (as does Hume in his Dialogues in the person of Philo as opposed to Cleanthes), which is a concept in which one thinks the first being by means of ontological predicates alone, of substance, cause, etc. (something that one must do, since reason, being driven in the sensible world solely by conditions that are always again conditioned, cannot have any satisfaction at all without this being done, and something that one very well can do without falling into that anthropomorphism which transfers predicates from the sensible world onto a being wholly distinct from the world, since the predicates listed here are mere categories, which cannot indeed provide any determinate concept of that being, but which, for that very reason, do not provide a concept of it that is limited to the conditions of sensibility) – then nothing can keep us from predicating of this being a causality through reason with respect to the world, and thus from crossing over to theism, but without our being compelled to attribute this reason to that being in itself, as a

^{*} Such is an analogy between the legal relation of human actions and the mechanical relation of moving forces: I can never do anything to another without giving him a right to do the same to me under the same conditions; just as a body cannot act on another body with its motive force without thereby causing the other body to react just as much on it. Right and motive force are here completely dissimilar things, but in their relation there is nonetheless complete similarity. By means of such an analogy I can therefore provide a concept of a relation to things that are absolutely unknown to me. E.g., the promotion of the happiness of the children = a is to the love of the parents = b as the welfare of humankind = c is to the unknown in God = x, which we call love: not as if this unknown had the least similarity with any human inclination, but because we can posit the relation between God's love and the world to be similar to that which things in the world have to one another. But here the concept of the relation is a mere category, namely the concept of cause, which has nothing to do with sensibility.

property inhering in it. For, concerning the *first point*, at the only possible way to compel the use of reason in the sensible world (with respect to all 4: 359 possible experience) into the most thoroughgoing harmony with itself is to assume, in turn, a supreme reason as a cause of all connections in the world; such a principle must be thoroughly advantageous to reason and can nowhere harm it in its use in nature. Regarding the second point, however, reason is not thereby transposed as a property onto the first being in itself, but only onto the relation of that being to the sensible world, and therefore anthropomorphism is completely avoided. For here only the cause of the rational form found everywhere in the world is considered, and the supreme being, insofar as it contains the basis of this rational form of the world, is indeed ascribed reason, but only by analogy, i.e., insofar as this expression signifies only the relation that the highest cause (which is unknown to us) has to the world, in order to determine everything in it with the highest degree of conformity to reason. We thereby avoid using the property of reason in order to think God, but instead think the world through it in the manner necessary to have the greatest possible use of reason with respect to the world in accordance with a principle. We thereby admit that the supreme being, as to what it may be in itself, is for us wholly inscrutable and is even unthinkable by us in a determinate manner; and we are thereby prevented from making any transcendent use of c the concepts that we have of reason as an efficient cause (through willing) in order to determine the divine nature through properties that are in any case always borrowed only from human nature, and so from losing ourselves in crude or fanatical concepts, and, on the other hand, we are also prevented from swamping the contemplation of the world with hyperphysical modes of explanation according to concepts of human reason we have transposed onto God, and so from diverting this contemplation from its true vocation, according to which it is supposed to be a study of mere nature through reason, and not an audacious derivation of the appearances of nature from a supreme reason. The expression suitable to our weak concepts will be: that we think the world AS IF it derived from a supreme reason as regards its existence and inner

* I will say: the causality of the highest cause is that, with respect to the world, which human reason is with respect to its works of art. Thereby the nature of the highest cause itself remains unknown to me: I compare only its effect (the order of the world), which is known to me, and the conformity with reason of this effect, with the effects of human reason that are known to me, and in

determination; whereby we in part cognize the constitution belonging

to it (the world) itself, without presuming to want to determine that of its cause in itself, and, on the other hand, we in part posit the basis of this

constitution (the rational form of the world) *in the relation* of the highest cause to the world, not finding the world by itself sufficient thereto.*

In this way the difficulties that appear to oppose theism disappear, in that to *Hume's* principle, not to drive the use of reason dogmatically beyond the field of all possible experience, we conjoin another principle that Hume completely overlooked, namely: not to look upon the field of possible experience as something that bounds itself in the eyes of our reason. A critique of reason indicates the true middle way between the dogmatism that Hume fought and the skepticism he wanted to introduce instead – a middle way that, unlike other middle ways, which we are advised to determine for ourselves as it were mechanically (something from one side, and something from the other), and by which no one is taught any better, is one, rather, that can be determined precisely, according to principles. ⁷⁶

§59

At the beginning of this note I made use of the metaphor of a boundary in order to fix the limits of reason with respect to its own appropriate use. The sensible world contains only appearances, which are still not things in themselves, which latter things (noumena) the understanding must therefore assume for the very reason that it cognizes the objects of experience as mere appearances. Both are considered together in our reason, and the question arises: how does reason proceed in setting boundaries for the understanding with respect to both fields? Experience, which contains everything that belongs to the sensible world, does not set a boundary for itself: From every conditioned it always arrives merely at another conditioned. That which is to set its boundary must lie completely outside it, and this is the field of pure intelligible beings. For us, however, as far as concerns the determination of the nature of these intelligible beings, this is an empty space, and to that extent, if dogmatically determined concepts are intended, we cannot go beyond the field of possible experience. But since a boundary is itself something positive, which belongs as much to what is within it as to the space lying outside a given totality, reason therefore, merely by expanding up to this boundary, partakes of a real, positive cognition, provided that it does not try to go out beyond the boundary, since there it finds an empty space before it, in which it can indeed think the

consequence I call the highest cause a reason, without thereby ascribing to it as its property the same thing I understand by this expression in humans, or in anything else known to me.

[&]quot; "something that one must do ..."

b "something that one very well can do . . ."

^c Reading von for nach, with Vorländer.

^d Adding ist after Mittelwege, as suggested by Vorländer.

forms to things, but no things themselves. But setting the boundary to the field of experience through something that is otherwise unknown to it is indeed a cognition that is still left to reason from this standpoint, whereby reason is neither locked inside the sensible world nor adrift outside it, but, as befits knowledge of a boundary, restricts itself solely to the relation of what lies outside the boundary to what is contained within.

Natural theology is a concept of this kind, on the boundary of human reason, since reason finds itself compelled to look out toward the idea of a supreme being (and also, in relation to the practical, to the idea of an intelligible world), not in order to determine something with respect to this mere intelligible being (and hence outside the sensible world), but only in order to guide its own use within the sensible world in accordance with principles of the greatest possible unity (theoretical as well as practical), and to make use (for this purpose) of the relation of that world to a free-standing reason as the cause of all of these connections—not, however, in order thereby merely to fabricate a being, but, since beyond the sensible world there must necessarily be found something that is thought only by the pure understanding, in order, in this way, to determine this being, 4 though of course merely through analogy.

In this manner our previous proposition, which is the result of the entire *Critique*, remains: "that reason, through all its *a priori* principles, never teaches us about anything more than objects of possible experience alone, and of these, nothing more than what can be cognized in experience"; but this limitation does not prevent reason from carrying us up to the objective *boundary* of experience – namely, to the *relation* to something that cannot itself be an object of experience, but which must nonetheless be the highest ground of all experience – without, however, teaching us anything about this ground in itself, but only in relation to reason's own complete use in the field of possible experience, as directed to the highest ends. This is, however, all of the benefit that can reasonably even be wished for here, and there is cause to be satisfied with it.

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We have thus fully exhibited metaphysics in accordance with its subjective possibility, as metaphysics is actually given in the natural predisposition of human reason, and with respect to that which forms the essential goal of its cultivation. But because we found that, if reason is not reined in and given limits by a discipline of reason, which is only possible through a scientific critique, this wholly natural use of this sort of predisposition of our reason entangles it in transcendent dialectical inferences, which are partly

specious, partly even in conflict among themselves; and, moreover, because we found that this sophistical metaphysics is superfluous, nay, even detrimental to the advancement of the cognition of nature, it therefore still remains a problem worthy of investigation, to discover the *natural purposes* toward which this predisposition of our reason to transcendent concepts may be aimed, since everything found in nature must originally be aimed at some beneficial purpose or other.

Such an investigation is in fact uncertain; I also admit that it is merely conjectural (as is everything I know to say concerning the original purposes of nature), something I may be permitted in this case only, since the question does not concern the objective validity of metaphysical judgments, but rather the natural predisposition to such judgments, and therefore lies outside the system of metaphysics, in anthropology.⁷⁷

If I consider all the transcendental ideas, which together constitute the real problem for natural pure reason – a problem that compels reason to forsake the mere contemplation of nature and go beyond all possible experience, and, in this endeavor, to bring into existence the thing called metaphysics (be it knowledge or sophistry) – then I believe I perceive that this natural predisposition is aimed at making our concept sufficiently free from the fetters of experience and the limits of the mere contemplation of nature that it at the least sees a field opening before it that contains only objects for the pure understanding which no sensibility can reach: not with the aim that we concern ourselves speculatively with these objects (for we find no ground on which we can gain footing), but rather with practical principles, which, without finding such a space before them for their necessary expectations and hopes, could not extend themselves to the universality that reason ineluctably requires with respect to morals.

Here I now find that the *psychological* idea, however little insight I may gain through it into the pure nature of the human soul elevated beyond all concepts of experience, at least reveals clearly enough the inadequacy of those concepts of experience, and thereby leads me away from materialism, as a psychological concept unsuited to any explanation of nature and one that, moreover, constricts reason with respect to the practical. Similarly, the *cosmological* ideas, through the manifest inadequacy of all possible cognition of nature to satisfy reason in its rightful demands,

^a Omitting nur after dieses, with Vorländer.

[&]quot; Reading unserer for unsere, with Ak.

^b Reading Vernunft, with the original edition; Ak has Natur (a typographical error).

⁶ Supplying betrachte as the verb, with Vorländer; Ak supplies zusammennehme.

^d There is a generally acknowledged ellipsis at this point. I avoid adopting any of the lengthy interpolations recorded in Vorländer by extending the meaning of the previous verb, *zu beschäftigen*, beyond *sondern*, so as to provide a context for *practische Principien* (a solution that also would require some emendation of the German).

serve to deter us from naturalism, which would have it that nature is sufficient unto itself. Finally, since all natural necessity in the sensible world is always conditioned, in that it always presupposes the dependence of one thing on another, and since unconditioned necessity must be sought only in the unity of a cause distinct from the sensible world, although the causality of that cause, in turn, if it were merely nature, could never make comprehensible the existence of the contingent as its consequence, reason, therefore, by means of the theological idea, frees itself from fatalism - from blind natural necessity, both in the connection of nature itself, without a first principle, and in the causality of this principle itself - and leads the way to the concept of a cause through freedom, and so to that of a highest intelligence. The transcendental ideas therefore serve, if not to instruct us positively, at least to negate the impudent assertions of materialism, naturalism, and fatalism which constrict the field of reason, and in this way they serve to provide moral ideas with space outside the field of speculation; and this would, I should think, to some extent explain the aforementioned natural predisposition.

The practical benefit that a purely speculative science may have lies outside the boundaries of this science; such benefit can therefore be seen simply as a scholium, and like all scholia does not form part of the science itself. Nonetheless, this relation at least lies within the boundaries of philosophy, and especially of that philosophy which draws from the wellsprings of pure reason, where the speculative use of reason in metaphysics must necessarily have unity with its practical use in morals. Hence the unavoidable dialectic of pure reason deserves, in a metaphysics considered as natural predisposition, not only to be explained as an illusion that needs to be resolved, but also (if one can) as a *natural institution* in accordance with its purpose – although this endeavor, as supererogatory, cannot rightly be required of metaphysics proper.

The solution to the questions that proceed in the *Critique* from pages 647 to 668 would have to be taken for a second scholium, more closely related to the content of metaphysics.⁷⁸ For there certain principles of reason are put forward that determine the order of nature *a priori*, or rather determine the understanding *a priori*, which is supposed to search for the laws of this order by means of experience. These principles seem to be constitutive and law-giving with respect to experience, though they spring from mere reason, which cannot, like the understanding, be regarded as a principle of possible experience. Now whether this agreement rests on the fact that, just as nature does not in itself inhere in the appearances or in their source, sensibility, but is found only in the relation of sensibility to the understanding, so too, a thoroughgoing unity in the use of this understanding, for the sake of a unified possible experience (in a system), can belong to the understanding only in relation to reason, hence experience, too, be indirectly subject to the legislation

of reason – this may be further pondered by those who want to track the nature of reason even beyond its use in metaphysics, into the universal principles for making natural history generally systematic; for in the book itself I have indeed presented this problem as important, but have not attempted its solution.*

And thus I conclude the analytic⁷⁹ solution of the main question I myself have posed: How is metaphysics in general possible?, since I have ascended from the place where its use is actually given, at least in the consequences, to the grounds of its possibility.

* It was my unremitting intention throughout the *Critique* not to neglect anything that could bring to completion the investigation of the nature of pure reason, however deeply hidden it might lie. Afterwards it is in each person's discretion, how far he will take his investigation, if he only has been apprised of what may still need to be done; for it can properly be expected, from one who has made it his business to survey this entire field, that afterward he leave future additions and optional divisions to others. Hereto belong both of the scholia, which, on account of their dryness, could hardly be recommended to amateurs, and have therefore been set out only for experts.

Solution to the General Question of the Prolegomena How is metaphysics possible as science?

Metaphysics, as a natural predisposition of reason, is actual, but it is also of itself (as the analytical solution to the third main question proved) dialectical and deceitful. The desire to derive principles from it, and to follow the natural but nonetheless false illusion in their use, can therefore never bring forth science, but only vain dialectical art, in which one school can outdo another but none can ever gain legitimate and lasting approbation.

In order that metaphysics might, as science, be able to lay claim, not merely to deceitful persuasion, but to insight and conviction, a critique of reason itself must set forth the entire stock of a priori concepts, their division according to the different sources (sensibility, understanding, and reason), further, a complete table of those concepts, and the analysis of all of them along with everything that can be derived from that analysis; and then, especially, such a critique must set forth the possibility of synthetic cognition a priori through a deduction of these concepts, it must set forth the principles of their use, and finally also the boundaries of that use; and all of this in a complete system. Therefore a critique, and that alone, contains within itself the whole well-tested and verified plan by which metaphysics as science can be achieved, and even all the means for carrying it out; by any other ways or means it is impossible. Therefore the question that arises here is not so much how this enterprise is possible, but only how it is to be set in motion, and good minds stirred from the hitherto ill-directed and fruitless endeavor to one that will not deceive, and how such an alliance might best be turned toward the common end.

This much is certain: whosoever has once tasted of critique forever loathes all the dogmatic chatter which he previously had to put up with out of necessity, since his reason was in need of something and could not find anything better for its sustenance. Critique stands to the ordinary school metaphysics precisely as chemistry stands to alchemy, or astronomy to the fortune-teller's astrology. I'll guarantee that no one who has thought through and comprehended the principles of critique, even if only in

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these prolegomena, will ever again return to that old and sophistical nseudoscience; he will on the contrary look out with a certain delight upon a metaphysics that is now fully in his power, that needs no more preliminary discoveries, and that can for the first time provide reason with lasting satisfaction. For this is an advantage upon which metaphysics alone, among all the possible sciences, can rely with confidence, namely, that it can be completed and brought into a permanent state, since it cannot be further changed and is not susceptible to any augmentation through new discoveries - because here reason has the sources of its cognition not in objects and their intuition (through which reason cannot be taught one thing more), but in itself, and, if reason has presented the fundamental laws of its faculty fully and determinately (against all misinterpretation), nothing else remains that pure reason could cognize a priori, or even about which it could have cause to ask. The sure prospect of a knowledge so determinate and final has a certain attraction to it, even if all usefulness (of which I will say more hereafter) is set aside.

All false art, all empty wisdom lasts for its time; for it finally destroys itself, and the height of its cultivation is simultaneously the moment of its decline. That this time has now come as regards metaphysics is proven by the condition into which it has fallen among all learned peoples, amidst all the zeal with which sciences of all kinds are otherwise being developed. The old organization of university studies still preserves the shadow of metaphysics, a lone academy of sciences now and then, by offering prizes, moves someone or other to make an effort in it, but metaphysics is no longer reckoned among serious sciences, and each may judge for himself how a clever man, whom one wished to call a great metaphysician, would perhaps receive this encomium, which might be well meant but would hardly be envied by anyone.

But although the time for the collapse of all dogmatic metaphysics is undoubtedly here, much is still lacking in order to be able to say 4: 367 that, on the contrary, the time for its rebirth, through a thorough and completed critique of reason, has already appeared. All transitions from one inclination to its opposite pass through a state of indifference, and this moment is the most dangerous for an author, but nonetheless, it seems to me, the most favorable for the science. For if the partisan spirit has been extinguished through the complete severance of former ties, then minds are best disposed to hear out, bit by bit, proposals for an alliance according to another plan.

If I say that I hope these Prolegomena will perhaps excite investigation in the field of critique, and provide the universal spirit of philosophy, which seems to want nourishment in its speculative part, with a new and

⁴ Reading um for nur, with Ak.

quite promising object of sustenance, I can already imagine beforehand that everyone who^a has been made weary and unwilling by the thorny paths on which I have led him in the *Critique* will ask me: On what do I base this hope? I answer: *On the irresistible law of necessity*.

That the human mind would someday entirely give up metaphysical investigations is just as little to be expected, as that we would someday gladly stop all breathing so as never to take in impure air. There will therefore be metaphysics in the world at every time, and what is more, in every human being, and especially the reflective ones; metaphysics that each, in the absence of a public standard of measure, will carve out for himself in his own manner. Now what has hitherto been called metaphysics can satisfy no inquiring mind, and yet it is also impossible to give up metaphysics completely; therefore, a critique of pure reason itself must finally be *attempted*, or, if one exists, it must be *examined* and put to a general test, since there are no other means to relieve this pressing need, which is something more than a mere thirst for knowledge.

Ever since I have known critique, I have been unable to keep myself from asking, upon finishing reading through a book with metaphysical content, which has entertained as well as cultivated me by the determination of its concepts and by variety and organization and by an easy presentation: has this author advanced metaphysics even one step? I ask forgiveness of the learned men whose writings have in other respects been useful to me and have always contributed to a cultivation of mental powers, because I confess that I have not been able to find, either in their attempts or in my own inferior ones (with self-love speaking in their favor), that the science has thereby been advanced in the least, and this for the wholly natural reason that the science did not yet exist, and also that it cannot be assembled bit by bit but rather its seed must be fully preformed beforehand in the critique. However, in order to avoid all misunderstanding, it must be recalled from the preceding that although the understanding certainly benefits very much from the analytical treatment of our concepts, the science (of metaphysics) is not advanced the least bit thereby, since these analyses of concepts are only materials, out of which the science must first be constructed. The concept of substance and accident may be analyzed and determined ever so nicely; that is quite good as preparation for some future use. But if I simply cannot prove that in all that exists the substance persists and only the accidents change, then through all this analysis the science has not been advanced in the least. Now metaphysics has not as yet been able to prove, as a priori valid, either this proposition or the principle of sufficient reason, still less any more composite proposition, such as, for instance, one belonging

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to psychology or cosmology, nor, in general, any synthetic proposition whatsoever; hence, through all this analysis nothing has been achieved, nothing created and advanced, and, after so much bustle and clatter, the science is still right where it was in Aristotle's time, although the preparations for it incontestably have been much better laid than before, if only the guiding thread to synthetic cognition had first been found.

If anyone believes himself wronged in this, he can easily remove the above indictment if he will cite only a single synthetic proposition belonging to metaphysics that he offers to prove a priori in the dogmatic manner; for only when he accomplishes this will I grant to him that he has actually advanced the science (even if the proposition may otherwise have been sufficiently established through common experience). No challenge can be more moderate and more equitable, and in the (infallibly certain) event of nonfulfillment, no verdict more just, than this: that up to now metaphysics as science has never existed at all.

In case the challenge is accepted, I must forbid only two things: first, the plaything of *probability* and conjecture, which suits metaphysics just as poorly as it does geometry; second, decision by means of the divining rod of so-called *sound common sense*, which does not bend for everyone, but is guided by personal qualities.

For, as regards the first, there can be nothing more absurd than to want to base one's judgments in metaphysics, a philosophy from pure reason, on probability and conjecture. Everything that is to be cognized a priori is for that very reason given out as apodictically certain and must therefore also be proven as such. One might just as well want to base a geometry or an arithmetic on conjectures; for as concerns the calculus probabilium of arithmetic, it contains not probable but completely certain judgments about the degree of possibility of certain cases under given homogeneous conditions, judgments which, in the sum total of all possible cases, must be found to conform to the rule with complete infallibility, even though this rule is not sufficiently determinate with respect to any single case. Only in empirical natural science can conjectures (by means of induction and analogy) be tolerated, and even then, the possibility at least of what I am assuming must be fully certain.

Matters are, if possible, even worse with the *appeal to sound common sense*, if the discussion concerns^c concepts and principles, not insofar as they are supposed to be valid with respect to experience, but rather insofar as they are to be taken as valid beyond the conditions of experience.

^a Reading den for der, with Ak.

^a gesunden Menschenverstandes

b "calculus of probability"

^c Adding die Rede ist, with Ak.

For what is sound common sense?^a It is the ordinary understanding,^b insofar as it judges correctly. And what now is the ordinary understanding? It is the faculty of cognition and of the use of rules in concreto, as distinguished from the speculative understanding, which is a faculty of the cognition of rules in abstracto. The ordinary understanding will, then, hardly be able to understand the rule: that everything which happens is determined by its cause, and it will never be able to have insight into it in such a general way. It therefore demands an example from experience, and when it hears that this rule means nothing other than what it had always thought when a windowpane was broken or a household article had disappeared, it then understands the principle and grants it. Ordinary understanding, therefore, has a use no further than the extent to which it can see its rules confirmed in experience (although these rules are actually present in it a priori); consequently, to have insight into these rules a priori and independently of experience falls to the speculative understanding, and lies completely beyond the horizon of the ordinary understanding. But metaphysics is concerned indeed solely with this latter type of cognition, and it is certainly a poor sign of sound common sense to appeal to this guarantor, who has no judgment here, and whom we otherwise look down upon, except if we find ourselves in trouble, and without either advice or help in our speculation.

It is a common excuse, habitually employed by these false friends of ordinary common sense (which they extol on occasion, but usually despise), to say: There must in the end be some propositions that are immediately certain, and for which not only no proof, but indeed no account at all need be given, since otherwise there would never come an end to the grounds for one's judgments; but in proof of this right they can never cite anything else (other than the principle of contradiction, which is however inadequate for establishing the truth of synthetic judgments) that is undoubted and can be ascribed directly to ordinary common sense, except for mathematical propositions: e.g., that two times two makes four, that between two points there is only one straight line, and still others. These judgments are, however, worlds apart from those of metaphysics. For in mathematics, everything that I conceive through a concept as possible I can make for myself (construct) by means of my thought; to one two I successively add the other two, and myself make the number four, or I draw in thought all kinds of lines from one point to the other, and can draw only one that is self-similar in all its parts (equal as well as unequal). 80 But from the concept of a thing I cannot, with all my powers of thought, draw forth the concept of something else whose existence is

necessarily connected with the first thing, but must consult experience; and, although my understanding provides me a priori (though always only in relation to possible experience) with the concept of a connection of this sort (causality), I nevertheless cannot exhibit this concept in intuition 4: 371 a priori, like the concepts of mathematics, and thus exhibit its possibility a priori; rather, this concept (together with principles of its application), if it is to be valid a priori – as is indeed required in metaphysics – always has need of a justification and deduction of its possibility, for otherwise one does not know the extent of its validity and whether it can be used only in experience or also outside it. Therefore in metaphysics, as a speculative science of pure reason, one can never appeal to ordinary common sense. but one can very well do so if one is forced to abandon metaphysics and to renounce all pure speculative cognition, which must always be knowledge, hence to renounce metaphysics itself and its teaching (on certain matters), and if a reasonable belief b is alone deemed possible for us, as well as sufficient for our needs (perhaps more wholesome indeed than knowledge itself). For then the shape of things is completely altered. Metaphysics must be science, not only as a whole but also in all its parts; otherwise it is nothing at all, since, as speculation of pure reason, it has a hold on nothing else save universal insights. But outside metaphysics, probability and sound common sense can very well have their beneficial and legitimate use, though following principles entirely their own, whose importance always depends on a relation to the practical.

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

Appendix On what can be done in order to make metaphysics as science actual

Since all paths hitherto taken have not attained this end, and it may never be reached without a preceding critique of pure reason, the demand that the attempt at such a critique which is now before the public be subjected to an exact and careful examination does not seem unreasonable - unless it is considered more advisable still to give up all claims to metaphysics entirely, in which case, if one only remains true to one's intention, there 4: 372 is nothing to be said against it. If the course of events is taken as it actually runs and not as it should run, then there are two kinds of judgments: a judgment that precedes the investigation, and in our case this is one in which the reader, from his own metaphysics, passes judgment on the Critique of Pure Reason (which is supposed first of all to investigate the possibility of

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a gesunde Verstand

a ein Wissen

^b vernünftiger Glaube

gemeine Verstand

Reading seien for seyn, with Vorländer.

that metaphysics); and then a different judgment that comes after the investigation, in which the reader is able to set aside for a while the consequences of the critical investigation, which might tell pretty strongly against the metaphysics he otherwise accepts, and first tests the grounds from which these consequences may have been derived. If what ordinary metaphysics presents were undeniably certain (like geometry, for instance), the first way of judging would be valid; for if the consequences of certain principles conflict with undeniable truths, then those principles are false and are to be rejected without any further investigation. But if it is not the case that metaphysics has a supply of incontestably certain (synthetic) propositions, and perhaps is the case that a good number of them, which are as plausible as the best among them, nevertheless are," in their consequences, in conflict even among themselves, while there is not to be found overall in metaphysics any secure criterion whatsoever of the truth of properly metaphysical (synthetic) propositions: then the first way of judging cannot be allowed, but rather the investigation of the principles of the Critique must precede all judgment of its worth or unworth.

Specimen of a judgment about the *Critique* which precedes the investigation

This sort of judgment is to be found in the Göttingische gelehrte Anzeigen, the third part of the supplement, from January 19, 1782, pages 40 ff.⁸¹

If an author who is well acquainted with the object of his work, who has been assiduous throughout in putting reflection into its composition that is completely his own, falls into the hands of a reviewer who for his part is sufficiently clear-sighted to espy the moments upon which the worth or unworth of the piece actually rests, who does not hang on words but follows the subject matter, and who examines and tests only the principles from which the author has proceeded, then although the severity of the judgment may certainly displease the author, the public is, by contrast, indifferent to it, for it profits thereby; and the author himself can be content that he gets the opportunity to correct or to elucidate his essays, which have been examined early on by an expert, and, if he believes he is basically right, in this way to remove in good time a stumbling block that could eventually be detrimental to his work.

I find myself in a completely different situation with my reviewer. He appears not at all to see what really mattered in the investigation with which I have (fortunately or unfortunately) occupied myself, and,

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whether it was impatience with thinking through a lengthy work, or ill-temper over the threatened reform of a science in which he believed he had long since put everything in order, or whether, as I reluctantly surmise, it was the fault of a truly limited conception, through which he could never think himself beyond his school metaphysics – in short, he impetuously runs through a long series of propositions, with which one can think nothing at all without knowing their premises, he disperses his rebukes to and fro, for which the reader no more sees any basis than he understands the propositions toward which they are supposedly directed, and therefore the reviewer can neither help to inform the public nor do me the least bit of harm in the judgment of experts; consequently, I would have passed over this review completely, if it did not provide me occasion for a few elucidations that in some cases might save the reader of these *Prolegomena* from misconception.

In order, however, that the reviewer might adopt a viewpoint from which he could, without having to trouble himself with any special investigation, most easily present the entire work in a manner disadvantageous to the author, he begins and also ends by saying: "this work is a system of transcendental^a (or, as he construes it, higher)* idealism."

At the sight of this line I quickly perceived what sort of review would issue thence – just about as if someone who had never seen or heard anything of geometry were to find a Euclid, and, being asked to pass judgment on it, were perhaps to say, after stumbling onto a good many figures by turning the pages: "the book is a systematic guide to drawing; the author makes use of a special language in order to provide obscure, unintelligible instructions, which in the end can achieve nothing more than what anyone can accomplish with a good natural eye, and so on."

^a Reading sind for seyn, with Ak.

b Reading denen for die, with Vorländer.

Deleting nicht prior to bloss, with Vorländer.

^{*} On no account higher. High towers and the metaphysically-great men who resemble them, around both of which there is usually much wind, are not for me. My place is the fertile bathos of experience, and the word: transcendental—whose signification, which I indicated so many times, was not caught once by the reviewer (so hastily had he looked at everything)—does not signify something that surpasses all experience, but something that indeed precedes experience (a priori), but that, all the same, is destined to nothing more than solely to make cognition from experience possible. If these concepts cross beyond experience, their use is then called transcendent, which is distinguished from the immanent use (i.e., use limited to experience). All misinterpretations of this kind have been sufficiently forestalled in the work itself; but the reviewer found his advantage in misinterpretations.

⁴ Reading transcendentalen for transscendenten, in accordance with Kant's wording in his footnote; the Garve–Feder review itself has the word transscendentellen here (p. 40), a spelling that Kant did not use.

^b The parenthetical aside is Kant's insertion.

Let us, however, look at what sort of idealism it is that runs through my entire work, although it does not by far constitute the soul of the system.

The thesis of all genuine idealists, from the Eleatic School up to Bishop Berkeley,⁸² is contained in this formula: "All cognition through the senses and experience is nothing but sheer illusion, and there is truth only in the ideas of pure understanding and reason."

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

But this is, of course, the direct opposite of the previous, genuine idealism; how then did I come to use this expression with a completely opposite intention, and how did the reviewer come to see genuine idealism everywhere?

The solution to this difficulty rests upon something that could have been seen very easily from the context of the work, if one had wanted to. Space and time, together with everything contained in them, are not things (or properties of things) in themselves, but belong instead merely to the appearances of such things; thus far I am of one creed with the previous idealists. But these idealists, and among them especially Berkeley, viewed space as a merely empirical representation, a representation which, just like the appearances in space together with all of the determinations of space, would be known to us only by means of experience or perception; I show, on the contrary, first: that space (and time as well, to which Berkeley gave no attention), together with all its determinations, can be cognized by us a priori, since space (as well as time) inheres in us before all perception or experience as a pure form of our sensibility and makes possible all intuition from sensibility, and hence all appearances. From this it follows: that, since truth rests upon universal and necessary laws as its criteria, for Berkeley experience could have no criteria of truth, because its appearances (according to him) had nothing underlying them a priori; from which it then followed that experience is nothing but sheer illusion, whereas for us space and time (in combination with the pure concepts of the understanding) prescribe a priori their law to all possible experience, which law at the same time provides the sure criterion for distinguishing truth from illusion in experience.*

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* Genuine idealism always has a visionary purpose and can have no other; but my idealism is solely for grasping the possibility of our *a priori* cognition of the objects of experience, which is a problem that has not been solved before now, nay, has not even once been posed. By that means all visionary idealism

My so-called (properly, critical) idealism is therefore of a wholly peculiar kind, namely such that it overturns ordinary idealism, and such that by means of it all cognition a priori, even that of geometry, first acquires objective reality, which, without my proven ideality of space and time, could not have been asserted by even the most zealous of realists. With matters standing so, I have wished that I could name this concept of mine something else, in order to^b prevent all misunderstanding; but this concept cannot be completely changed. I may therefore be permitted in the future, as has already been stated above, to call it formal, or better, critical idealism, in order to distinguish it from the dogmatic idealism of Berkeley and the skeptical idealism of Descartes.

I find nothing else worthy of note in the review of this book. Its author judges en grose throughout, a mode that is cleverly chosen, since it does not betray one's own knowledge or ignorance; a single comprehensive judgment en détail, d if, as is proper, it had considered the main question, would have perhaps exposed my error, perhaps also the degree of the reviewer's insight into investigations of this kind. It was no ill-considered trick, for removing early on the desire to read the book itself from readers who are used to forming a conception of books from newspaper articles only, to recite one after another a great many propositions, which, torn from the context of their arguments and explications (especially as antipodean as these propositions are in relation to all school metaphysics), must of necessity sound nonsensical; to assault the reader's patience to the point of disgust; and then, after having introduced me to the witty proposition that constant illusion is truth, to conclude with the harsh, though paternal, reprimand: To what end, then, the conflict with accepted language, to what end, and whence, the idealistic distinction?⁸³ A judgment that ultimately renders everything peculiar to my book into merely verbal innovation (though previously the book was supposed to be metaphysically heretical), and that clearly proves that my would-be judge has not correctly understood

collapses, which (as was already to be seen with Plato) always inferred, from our cognitions *a priori* (even those^a of geometry), to another sort of intuition (namely, intellectual) than that of the senses, since it did not occur to anyone that the senses might also intuit *a priori*.

⁴ Reading denen for derer, with Ak.

b Reading um for nun, with Ak.

[&]quot;in the large"

d "in detail"

Omitting the antecedent addition of gemein or gemeine by Ak and Vorländer (respectively) as not required; Vorländer's emendation was based on the draft ms. (Ak 23:55).

the least bit of it, and, what's more, has not correctly understood himself.*

The reviewer, however, talks like a man who must be aware of important and exquisite insights, which, however, he still keeps secret; for nothing has become known to me of late regarding metaphysics that could justify such a tone. But he is doing a great wrong in withholding his discoveries from the world; for there are doubtless many others like me who, with all the fine things that have been written in this field for some time now, have still been unable to find that the science has thereby been advanced a finger's breadth. In other respects, we do indeed find definitions being sharpened, lame proofs provided with new crutches, the patchwork garment of metaphysics given new pieces, or an altered cut - but that is not what the world demands. The world is tired of metaphysical assertions; what's wanted b are the possibility of this science, the sources from which certainty could be derived in it, and sure criteria for distinguishing truth from the dialectical illusion of pure reason. The reviewer must possess the key to all this, otherwise he surely would never have spoken in so high a tone.

But I come to suspect that this sort of need of the science perhaps may never have come into his head; for otherwise he would have directed his review toward this point, and in such an important matter even a failed attempt would have gained his respect. If that is so, then we are good friends again. He may think himself as deeply into his metaphysics as seems good to him, no one will stop him; only he is not permitted to judge of something that lies outside metaphysics, i.e., its source located in reason. But that my suspicion is not unfounded, I prove by the fact that he did not say a word about the possibility of synthetic cognition a priori, which was the real problem, on the solution of which the fate

* The reviewer mostly fights his own shadow. When I oppose the truth of experience to dream, it never enters his head that the point of discussion is merely the notorious somnio objective sumto* of the Wolffian philosophy, which is merely formal, and whereby no regard at all is given to the difference between sleeping and waking, which also cannot be seen in transcendental philosophy. A 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 the manner of idealism." The reader need only examine these Prolegomena on this subject to be convinced that a more deplorable, and even a more historically incorrect judgment could not be given.

of metaphysics wholly rests, and to which my *Critique* (just as here my *Prolegomena*) was entirely directed. The idealism upon which he chanced, and to which he then held fast, was taken up into the system only as the sole means for solving this problem (although it then also received its^a confirmation on yet other grounds); and so he would have had to show either that this problem does not have the importance that I attribute to it (as also now in the *Prolegomena*), or that it could not be solved at all by my concept of appearances, or could better be solved in another way; but I find not a word of this in the review. The reviewer therefore understood nothing of my work and perhaps also nothing of the spirit and nature of metaphysics itself, unless on the contrary, which I prefer to assume, a reviewer's haste, indignant at the difficulty of plowing his way through so many obstacles, cast an unfavorable shadow over the work lying before him and made it unrecognizable to him in its fundamentals.

There is still a great deal needed for a learned gazette, however wellchosen and carefully selected its contributors may be, to be able to uphold its otherwise well-deserved reputation in the field of metaphysics (just as elsewhere). Other sciences and areas of learning have their standards. Mathematics has its standard within itself, history and theology in secular or sacred books, natural science and medicine in mathematics and experience, jurisprudence in law books, and even matters of taste in ancient paradigms. But in order to assess the thing called metaphysics, the standard must first be found (I have made an attempt to determine this standard as well as its use). Until it is ascertained, what is to be done when works of this kind must be judged? If they are of the dogmatic kind, one may do as one likes; no one will for long play the master over others in this without finding someone who repays him in kind. But if they are of the critical kind, and not indeed with regard to other writings but to reason itself, so that the standard of appraisal cannot be already assumed but must first be sought: then objection and censure are not to be forbidden, but they must be rooted in tolerance, since the need is common to us all, and the lack of the required insight makes an air of judicial decisiveness unsuitable.

But in order at the same time to tie this my defense to the interest of the philosophizing community, I propose a test, which is decisive as to the way in which all metaphysical investigations must be directed toward their common end. This is nothing else than what mathematicians have done before, in order to decide the merits of their methods in a contest – that is, a challenge to my reviewer to prove in his own way any single truly metaphysical (i.e., synthetic, and cognized a priori

[&]quot;dreams taken objectively"

b Not adopting Vorländer's additions, loosely based on the the draft ms. (Ak 23:58, 62), of untersucht wissen after werden könne, and haben after Criterien.

^c Reading Möglichkeit for Metaphysik, with Ak, as confirmed by the draft ms. (Ak 23:62).

[&]quot; Reading seine for ihre, with Ak.

b Kenntnisse

from concepts) proposition^a he holds, and at best one of the most indis-

pensable, such as the principle of the persistence of substance or of the

necessary determination of the events in the world through their cause

- but, as is fitting, to prove it on a priori grounds. If he can't do this (and

silence is confession), then he must admit: that, since metaphysics is ab-

solutely nothing without the apodictic certainty of propositions of this

sort, their possibility or impossibility would first, before all else, have to

be settled in a critique of pure reason, and hence he is obliged either to

acknowledge that my principles of critique are correct or to prove their

invalidity. Since, however, I already foresee that, as heedlessly as he has

hitherto been relying on the certainty of his principles, still, now that it

comes down to a rigorous test, he will not find a single principle in the

whole compass of metaphysics with which he can dare come forward, I

will therefore grant him the most favorable terms that can ever be ex-

Proposal for an investigation of the *Critique*, after which the judgment can follow

I am obliged to the learned public for the silence with which it has honored my *Critique* for so long a time; for this after all demonstrates a suspension of judgment, and thus some suspicion that, in a work that abandons all the usual paths and pursues a new one in which one cannot immediately find one's way, something might nonetheless perhaps be found through which an important but now moribund branch of human knowledge could receive new life and fertility, and so demonstrates a cautiousness, not to break off and destroy the still fresh graft through an overly hasty judgment. A specimen of a judgment that was delayed for such reasons has only just now come before me in the *Gothaische gelehrte Zeitung*, ⁸⁸ a judgment whose well-foundedness every reader will perceive for himself (without taking into account my own suspect praise) from the clear and candid presentation of a portion of the first principles of my work.

And now I propose, since a large edifice cannot possibly be instantly judged as a whole through a quick once-over, that it be examined piece by piece from its foundation, and that in this the present *Prolegomena* be used as a general synopsis, with which the work itself could then be compared on occasion. This suggestion, if it were based on nothing more than the imagined importance that vanity customarily imparts to all one's own products, would be immodest and would deserve to be dismissed with indignation. But the endeavors of all speculative philosophy now stand at the point of total dissolution, although human reason clings to them with undying affection, an affection that now seeks, though vainly, to turn itself into indifference, only because it has been constantly betrayed.

In our thinking age it is not to be expected but that many meritorious men would use every good opportunity to work together toward the common interest of an ever more enlightened reason, if only there appears some hope of thereby attaining the goal. Mathematics, natural 4: 381 science, law, the arts, even morals (and so on) do not completely fill up the soul; there still remains a space in it that is marked off for mere pure and speculative reason, and its emptiness drives us to seek out, in grotesques and trivialities, or else in delusions, what seems to be occupation and amusement, but is at bottom only distraction to drown out the troublesome call of reason, which, as befits its vocation, demands something that satisfies it for itself and does not merely stir it to activity on behalf of other purposes or in the service of inclinations. Therefore, for everyone who has even tried to enlarge his conception in this way, contemplation that occupies itself only with this sphere of reason existing for itself has a great attraction, because exactly in this sphere all other areas of learning and even ends must, as I have reason to suppose, join

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pected in a competition; namely, I will take the onus probandi b from him and will have it put on me. In particular, in these *Prolegomena* and in my *Critique*, pp. 426-61, ⁸⁶ he will find eight propositions which are, pair by pair, always in conflict with one another, but each of which belongs necessarily to metaphysics, which must either accept it or refute it (although there is not a single one of them that has not in its day been accepted by some philosopher or other). He now has the freedom to pick any one of these eight propositions he likes, and to assume it without proof (which I concede to him), but only one (for wasting time will be no more useful to him than to me), and then he is to attack my proof of the antithesis. But if I can rescue it, and in this way show that the opposite of the proposition he adopted can be proven exactly as clearly, in accordance with principles that every dogmatic metaphysics must of necessity acknowledge, then by this means it is settled that there is an hereditary defect in metaphysics that cannot be explained, much less removed, without ascending to its birthplace, pure reason itself, and so my Critique must either be accepted or a better one put in its place, and therefore it must at least be studied; which is the only thing I ask for now. If, on the contrary, I cannot rescue my proof, then a synthetic a priori proposition is established from dogmatic principles on my opponent's side, my indictment of ordinary metaphysics was therefore unjust, and I offer to recognize his censure of my Critique as legitimate (although this is far from being the likely outcome). But hereto it would be necessary, I should think, to emerge from being incognito, since I do not otherwise see how to prevent my being honored or assailed with many problems from unknown and indeed unbidden opponents, instead of just one.87

^a Adding Satz, with Vorländer.

b "burden of proof"

together and unite in a whole – and, I dare say, it has a greater attraction than any other theoretical knowledge, for which one would not readily exchange it.

But I propose these *Prolegomena* as the plan and guide for the investigation, and not the work^a itself, because, with respect to the latter, though I am even now quite satisfied as regards the content, order, and method, and the care that was taken to weigh and test each proposition accurately before setting it down (for it took years for me to be fully satisfied not only with the whole, but sometimes also with only a single proposition, as regards its sources), I am not fully satisfied with my presentation in some chapters of the Doctrine of Elements, e.g., the Deduction of the Concepts of the Understanding or the chapter on the Paralogisms of Pure Reason,⁸⁹ since in them a certain prolixity obstructs the clarity, and in their stead the examination can be based on what the *Prolegomena* here say with respect to these chapters.

The Germans are praised for being able to advance things further than other peoples in matters where persistence and unremitting industry are called for. If this opinion is well-founded, then an opportunity presents itself here to bring to completion an endeavor whose happy outcome is hardly to be doubted and in which all thinking persons share equal interest, but which has not succeeded before now - and to confirm that favorable opinion; especially since the science concerned is of such a peculiar kind that it can be brought all at once to its full completion, and into a permanent state such that it cannot be advanced the least bit further and can be neither augmented nor altered by later discovery (herein I do not include embellishment through enhanced clarity here and there, or through added utility in all sorts of respects): an advantage that no other science has or can have, since none is concerned with a cognitive faculty that is so fully isolated from, independent of, and unmingled with other faculties. The present moment does not seem unfavorable to this expectation of mine, since in Germany nowadays one hardly knows how he could keep himself otherwise still occupied outside the so-called useful sciences and have it be, not mere sport, but at the same time an endeavor through which an enduring goal is reached.

I must leave it to others to contrive the means by which the efforts of the learned could be united toward such an end. In the meantime it is not my intention to expect of anyone a simple adherence to my theses, nor even to flatter myself with hope of that; rather, whether it should, as it happens, be attacks, revisions, and qualifications that bring it about, or confirmation, completion, and extension, if only the matter is investigated from the ground up, then it now can no longer fail that

a system would thereby come into being (even if it were not mine) that could become a legacy to posterity for which it would have reason to be thankful.

It would be too much to show here what sort of metaphysics could be expected to follow if one were first right about the principles of a critique, and how it would by no means have to appear paltry and cut down to just a small figure because its false feathers had been plucked, but could in other respects appear richly and respectably outfitted; but other large benefits that such a reform would bring with it are apparent at once. The ordinary metaphysics has indeed already produced benefits, because it searched for the elementary concepts of the pure understanding in order to render them clear through analysis and determinate through explication. It was thereby a cultivation of reason, wherever reason might subsequently think fit to direct itself. But that was all the good that it did. For it undid this merit again by promoting self-conceit through rash assertions, sophistry through subtle evasions and glosses, and shallowness through the facility with which it overcame the most difficult problems with a little school wisdom - a shallowness that is all the more enticing the more it has the option of, on the one hand, taking on something from the language of science, and, on the other, from popularity, and thereby is everything to everyone, but in fact is nothing at all. By contrast, through critique our judgment is afforded a standard by which knowledge can be distinguished with certainty from pseudo-knowledge; and, as a result of being brought fully into play in metaphysics, critique establishes a mode of thinking that subsequently extends its wholesome influence to every other use of reason, and for the first time excites the true philosophical spirit. Moreover, the service it renders to theology, by making it independent of the judgment of dogmatic speculation and in that way securing it against all attacks from such opponents, is certainly not to be underrated. For the ordinary metaphysics, although promising to assist theology greatly, was subsequently unable to fulfill this promise, and beyond this, in calling speculative dogmatism to its aid, had done nothing other than to arm enemies against itself. Fanaticism, which cannot make headway in an enlightened age except by hiding behind a school metaphysics, under the protection of which it can venture, as it were, to rave rationally, will be driven by critical philosophy from this its final hiding place; and beyond all this it cannot fail to be important to a teacher of metaphysics to be able, for once with universal assent, to say that what he propounds is now at last science, and that through it genuine benefit is rendered to the commonweal.

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In old age a friend to one of the present editors, and in all ages a friend to would-be translators of Kant.