

## *II.*

### *Transcendental Doctrine of Method*

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$$\delta \left( \sum_{k=1}^n \frac{X_k}{k} \right) = \delta \left( \sum_{k=1}^n \frac{1}{k} \right)$$

$$(\mu^{\alpha},\mu^{\beta})=(\mu,\mu),\quad (\mu^{\alpha},\mu^{\gamma})=(\mu,\mu),\quad (\mu^{\beta},\mu^{\gamma})=(\mu,\mu).$$

Y

n

x<sub>0</sub>

v

y

z

y<sub>0</sub>z<sub>0</sub>x<sub>0</sub>

v

L'

f<sub>m</sub>

"If I regard the sum total of all cognition of pure and speculative reason as an edifice for which we have in ourselves at least the idea, then I can say that in the Transcendental Doctrine of Elements we have made an estimate of the building materials and determined for what sort of edifice, with what height and strength, they would suffice. It turned out, of course, that although we had in mind a tower that would reach the heavens, the supply of materials sufficed only for a dwelling that was just roomy enough for our business on the plane of experience and high enough to survey it; however, that bold undertaking had to fail from lack of material, not to mention the confusion of languages that unavoidably divided the workers over the plan and dispersed them throughout the world, leaving each to build on his own according to his own design.<sup>1</sup> Now we are concerned not so much with the materials as with the plan, and, having been warned not to venture some arbitrary and blind project that might entirely exceed our entire capacity,<sup>b</sup> yet not being able to abstain from the erection of a sturdy dwelling, we have to aim at an edifice in relation<sup>c</sup> to the supplies given to us that is at the same time suited to our needs.

By the transcendental doctrine of method, therefore, I understand the determination of the formal conditions of a complete system of pure reason. With this aim, we shall have to concern ourselves with a **discipline**, a **canon**, an **architectonic**, and finally a **history** of pure reason,<sup>2</sup> and will accomplish, in a transcendental respect, that which, under the name of a **practical logic**,<sup>3</sup> with regard to the use of the understanding in general, the schools sought but accomplished only badly; for since general logic is not limited to any particular kind of cognition of the understanding (e.g., not to the pure cognition of the understanding) nor to certain objects, it cannot, without borrowing knowledge from other sciences, do more than expound titles for **possible methods** and technical expressions that are used in regard to that which is systematic in all sorts of sciences, which first makes the novice familiar with names the significance and use of which he will only learn in the future.

<sup>a</sup> Throughout this part of the work there are minor changes in orthography between the two editions, very few of which affect the translation. Only the few that do will be noted.

<sup>b</sup> *Vermögen*

<sup>c</sup> *Verhältnis*

*The Transcendental Doctrine of Method**First Chapter**The discipline of pure reason<sup>4</sup>*

In humanity's general lust for knowledge, negative judgments, which are negative not merely on the basis of logical form but also on the basis of their content, do not stand in high regard: one regards them as jealous enemies of our unremitting drive straining for the expansion of our cognition, and it almost takes an apology to earn toleration for them, let alone favor and esteem.

To be sure, logically one can express negatively any propositions that one wants, but in regard to the content of our cognition in general, that is, whether it is expanded or limited by a judgment, negative judgments have the special job solely of preventing error. Hence even negative propositions, which are to prevent a false cognition, are often quite true yet empty where error is never possible, i.e., not appropriate for their purpose, and for this reason are often ridiculous, like the proposition of the scholastic orator that Alexander could not have conquered any lands without an army.

But where the limits of our possible cognition are very narrow, where the temptation to judge is great, where the illusion that presents itself is very deceptive, and where the disadvantage of error is very serious, there the negative in instruction, which serves merely to defend us from errors, is more important than many a positive teaching by means of which our cognition could be augmented. The compulsion through which the constant propensity to stray from certain rules is limited and finally eradicated is called discipline. It is different from culture, which would merely produce a skill without first canceling out another one that is already present. In the formation of a talent, therefore, which already has by itself a tendency to expression, discipline will make a negative contribution,\* but culture and doctrine a positive one.

discipline

\* I am well aware that in the language of the schools the name of discipline is customarily used as equivalent to that of instruction.<sup>a</sup> But there are so many

<sup>a</sup> *Unterweisung*

### The discipline of pure reason

Everyone will readily grant that the temperament as well as the talents that would allow a free and unlimited movement (such as imagination and wit) require discipline in many respects. But that reason, which is properly obliged to prescribe its discipline for all other endeavors, should have need of one itself, may certainly seem strange, and in fact reason has previously escaped such a humiliation only because, given the pomp and the serious mien with which it appears, no one could easily come to suspect it of frivolously playing with fancies instead of concepts and words instead of things.

No critique of reason in empirical use was needed, since its principles were subjected to a continuous examination on the touchstone of experience; it was likewise unnecessary in mathematics, whose concepts must immediately be exhibited *in concreto* in pure intuition, through which anything unfounded and arbitrary instantly becomes obvious. But where neither empirical nor pure intuition keeps reason in a visible track, namely in its transcendental use in accordance with mere concepts, there it so badly needs a discipline to constrain its propensity to expansion beyond the narrow boundaries of possible experience and to preserve it from straying and error that the entire philosophy of pure reason is concerned merely with this negative use. Individual errors can be remedied through **censure** and their causes through critique. But where, as in pure reason, an entire system of delusions and deceptions is encountered, which are connected with each other and unified under common principles,<sup>a</sup> there a quite special and indeed negative legislation seems to be required, which under the name of a **discipline** erects, as it were, a system of caution and self-examination out of the nature of reason and the objects of its pure use, before which no false sophistical illusion can stand up but must rather immediately betray itself, regardless of all grounds for being spared.

But it is well to note that in this second main part of the transcendental critique I do not direct the discipline of pure reason to the content but rather only to the method of cognition from pure reason. The former has already taken place in the Doctrine of Elements. But there is so much that is similar in the use of reason, whatever object it may be

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A 712 / B 740

other cases where the first expression, as **correction**,<sup>b</sup> must carefully be contrasted to **teaching**,<sup>c</sup> and the nature of things itself also makes it necessary to preserve the only suitable expression for this difference, that I wish that this word would never be allowed to be used in anything but the negative sense.

<sup>a</sup> *Principien*

<sup>b</sup> *Zucht*

<sup>c</sup> *Belehrung*

applied to, and yet, insofar as it would be transcendental, it is so essentially different from all other uses, that without the admonitory negative doctrine of a discipline especially aimed at them the errors could not be avoided that must necessarily arise from the inappropriate pursuit of such methods, which might be suitable for reason elsewhere but not here.

### First Chapter First Section

#### The discipline of pure reason in dogmatic use.

A713/B741 Mathematics gives the most resplendent example of pure reason happily expanding itself without assistance from experience. Examples are contagious, especially for the same faculty, which naturally flatters itself that it will have the same good fortune in other cases that it has had in one. Hence pure reason hopes to be able to expand itself in as happy and well grounded a way in its transcendental use as it succeeded in doing in its mathematical use, by applying the same method in the former case that was of such evident utility in the latter. It is therefore very important for us to know whether the method for obtaining apodictic certainty that one calls **mathematical** in the latter science is identical with that by means of which one seeks the same certainty in philosophy, and that would there have to be called **dogmatic**.

A714/B742 Philosophical cognition is **rational cognition** from **concepts**, mathematical cognition that from the **construction** of concepts.<sup>5</sup> But to **construct** a concept means to exhibit *a priori* the intuition corresponding to it. For the construction of a concept, therefore, a **non-empirical** intuition is required, which consequently, as intuition, is an **individual** object,<sup>6</sup> but that must nevertheless, as the construction of a concept (of a general representation), express in the representation universal validity for all possible intuitions that belong under the same concept. Thus I construct a triangle by exhibiting an object corresponding to this concept, either through mere imagination, in pure intuition, or on paper, in empirical intuition, but in both cases completely *a priori*, without having had to borrow the pattern for it from any experience. The individual drawn figure is empirical, and nevertheless serves to express the concept without damage to its universality, for in the case of this empirical intuition we have taken account only of the action of constructing the concept, to which many determinations, e.g., those of the magnitude of the sides and the angles, are entirely indifferent, and thus we have abstracted from these differences, which do not alter the concept of the triangle.

<sup>5</sup> Object

Philosophical cognition thus considers the particular only in the universal, but mathematical cognition considers the universal in the particular, indeed even in the individual, yet nonetheless *a priori* and by means of reason, so that just as this individual is determined under certain general conditions of construction, the object of the concept, to which this individual corresponds only as its schema, must likewise be thought as universally determined.

The essential difference between these two kinds of rational cognition therefore consists in this form, and does not rest on the difference in their matter, or objects. Those who thought to distinguish philosophy from mathematics by saying of the former that it has merely **quality** while the latter has **quantity** as its object<sup>a</sup> have taken the effect for the cause. The form of mathematical cognition is the cause of its pertaining solely to quanta. For only the concept of magnitudes can be constructed, i.e., exhibited *a priori* in intuition, while qualities cannot be exhibited in anything but empirical intuition. Hence a rational cognition of them can be possible only through concepts. Thus no one can ever derive an intuition corresponding to the concept of reality from anywhere except experience, and can never partake of it *a priori* from oneself and prior to empirical consciousness. The shape of a cone can be made intuitive without any empirical assistance, merely in accordance with the concept, but the color of this cone must first be given in one experience or another. I cannot exhibit the concept of a cause in general in intuition in any way except in an example given to me by experience, etc. Now philosophy as well as mathematics does deal with magnitudes, e.g., with totality, infinity, etc. And mathematics also occupies itself with the difference between lines and planes as spaces with different quality, and with the continuity of extension as a quality of it. But although in such cases they have a common object, the manner of dealing with it through reason is entirely different in philosophical than in mathematical consideration. The former confines itself solely to general concepts, the latter cannot do anything with the mere concepts but hurries immediately to intuition, in which it considers the concept *in concreto*, although not empirically, but rather solely as one which it has exhibited *a priori*, i.e., constructed, and in which that which follows from the general conditions of the construction must also hold generally of the object<sup>b</sup> of the constructed concept.

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A716/B744

Give a philosopher the concept of a triangle, and let him try to find out in his way how the sum of its angles might be related to a right angle. He has nothing but the concept of a figure enclosed by three straight lines, and in it the concept of equally many angles. Now he may

<sup>a</sup> Object

<sup>b</sup> Objekte

reflect on this concept as long as he wants, yet he will never produce anything new. He can analyze and make distinct the concept of a straight line, or of an angle, or of the number three, but he will not come upon any other properties that do not already lie in these concepts. But now let the geometer take up this question. He begins at once to construct a triangle. Since he knows that two right angles together are exactly equal to all of the adjacent angles that can be drawn at one point on a straight line, he extends one side of his triangle, and obtains two adjacent angles that together are equal to two right ones. Now he divides the external one of these angles by drawing a line parallel to the opposite side of the triangle, and sees that here there arises an external adjacent angle which is equal to an internal one, etc.<sup>6</sup> In such a way, through a chain of inferences that is always guided by intuition, he arrives at a fully illuminating and at the same time general solution of the question.

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But mathematics does not merely construct magnitudes (*quanta*), as in geometry, but also mere magnitude (*quantitatem*), as in algebra,<sup>a</sup> where it entirely abstracts from the constitution of the object that is to be thought in accordance with such a concept of magnitude.<sup>7</sup> In this case it chooses a certain notation for all construction of magnitudes in general (numbers), as well as addition, subtraction, extraction of roots, etc.,<sup>b</sup> and, after it has also designated the general concept of quantities in accordance with their different relations,<sup>c</sup> it then exhibits all the procedures through which magnitude is generated and altered in accordance with certain rules in intuition; where one magnitude is to be divided by another, it places their symbols together in accordance with the form of notation for division, and thereby achieves by a symbolic construction equally well what geometry does by an ostensive or geometrical construction (of the objects themselves), which discursive cognition could never achieve by means of mere concepts.

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What might be the cause of the very different situations in which these two reasoners find themselves, one of whom makes his way in accordance with concepts, the other in accordance with intuitions that he exhibits *a priori* for the concepts? According to the transcendental fundamental doctrine expounded above, this cause is clear. At issue here are not analytic propositions, which can be generated through mere analysis of concepts (here the philosopher would without doubt have the advantage over his rival), but synthetic ones, and indeed ones that are to be cognized *a priori*. For I am not to see what I actually think

<sup>a</sup> *Buchstabenrechnung*

<sup>b</sup> Following Erdmann, closing the parenthesis after "numbers" instead of "subtraction"; also moving the "etc." following "subtraction" to its present position.

<sup>c</sup> *Verhältnissen*

## The discipline of pure reason in dogmatic use

in my concept of a triangle (this is nothing further than its mere definition), rather I am to go beyond it to properties that do not lie in this concept but still belong to it. Now this is not possible in any way but by determining my object in accordance with the conditions of either empirical or pure intuition. The former would yield only an empirical proposition (through measurement of its angles), which would contain no universality, let alone necessity, and propositions of this sort are not under discussion here. The second procedure, however, is that of mathematical and here indeed of geometrical construction, by means of which I put together in a pure intuition, just as in an empirical one, the manifold that belongs to the schema of a triangle in general and thus to its concept, through which general synthetic propositions must be constructed.<sup>a</sup>

In vain, therefore, would I reflect on the triangle philosophically, i.e., discursively, without thereby getting any further than the mere definition with which, however, I had to begin. There is, to be sure, a transcendental synthesis from concepts alone, with which in turn only the philosopher can succeed, but which never concerns more than a thing in general, with regard to the conditions under which its perception could belong to possible experience. But in mathematical problems the question is not about this nor about existence<sup>b</sup> as such at all, but about the properties of the objects in themselves, solely insofar as these are combined with the concept of them.

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In these examples we have only attempted to make distinct what a great difference there is between the discursive use of reason in accordance with concepts and its intuitive use through the construction of concepts. Now the question naturally arises, what is the cause that makes such a twofold use of reason necessary, and by means of which conditions can one know<sup>c</sup> whether only the first or also the second takes place?

All of our cognition is in the end related to possible intuitions: for through these alone is an object given. Now an *a priori* concept (a non-empirical concept) either already contains a pure intuition in itself, in which case it can be constructed; or else it contains nothing but the synthesis of possible intuitions, which are not given *a priori*, in which case one can well judge synthetically and *a priori* by its means, but only discursively, in accordance with concepts, and<sup>d</sup> never intuitively through the construction of the concept.

A720/B748

Now of all intuition none is given *a priori* except the mere form of ap-

<sup>a</sup> The word *construiert* is missing in the first edition.

<sup>b</sup> *Existenz*

<sup>c</sup> *erkennen*

<sup>d</sup> *und* in the second edition replaces *aber* in the first.

pearances, space and time, and a concept of these, as *quanta*, can be exhibited *a priori* in pure intuition, i.e., constructed, together with either its quality (its shape) or else merely its quantity (the mere synthesis of the homogeneous manifold) through number. The matter of appearances, however, through which **things** in space and time are given to us, can be represented only in perception, thus *a posteriori*. The only concept that represents this empirical content of appearances *a priori* is the concept of the **thing** in general, and the synthetic *a priori* cognition of this can never yield *a priori* more than the mere rule of the synthesis of that which perception may give *a posteriori*, but never the intuition of the real object, since this must necessarily be empirical.

Synthetic propositions that pertain to **things** in general, the intuition of which cannot be given *a priori*, are transcendental. Thus transcendental propositions can never be given through construction of concepts, but only in accordance with *a priori* concepts. They contain merely the rule in accordance with which a certain synthetic unity of that which cannot be intuitively represented *a priori* (of perceptions) should be sought empirically. They cannot, however, exhibit a single one of their concepts *a priori* in any case, but do this only *a posteriori*, by means of experience, which first becomes possible in accordance with those synthetic principles.

If one is to judge synthetically about a concept, then one must go beyond this concept, and indeed go to the intuition in which it is given. For if one were to remain with that which is contained in the concept, then the judgment would be merely analytic, an explanation of what is actually contained in the thought. However, I can go from the concept to the pure or empirical intuition corresponding to it in order to assess it *in concreto* and cognize *a priori* or *a posteriori* what pertains to its object. The former is rational and mathematical cognition through the construction of the concept, the latter merely empirical (mechanical) cognition, which can never yield necessary and apodictic propositions. Thus I could analyze my empirical concept of gold without thereby gaining anything more than being able to enumerate what I actually think by means of this word, which would certainly produce a logical improvement in my cognition, but no augmentation or supplementation of it. But I can take the matter that goes by this name and initiate perceptions of it, which will provide me with various synthetic though empirical propositions. The mathematical concept of a triangle I would construct, i.e., give in intuition *a priori*, and in this way I would acquire synthetic but rational cognition. However, if I am given the transcendental concept of a reality, substance, force, etc., it designates neither an empirical nor a pure intuition, but only the synthesis of empirical intuitions (which thus cannot be given *a priori*), and since the synthesis cannot proceed *a priori* to the intuition that corresponds to it, no determining synthetic proposition

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A722/B750

The discipline of pure reason in dogmatic use

but only a principle of the synthesis\* of possible empirical intuitions can arise from it. A transcendental proposition is therefore a synthetic rational cognition in accordance with mere concepts, and thus discursive, since through it all synthetic unity of empirical cognition first becomes possible, but no intuition is given by it *a priori*.

There are thus two uses of reason, which, regardless of the universality of cognition and its *a priori* generation, which they have in common, are nevertheless very different in procedure, precisely because there are two components to the appearance through which all objects are given to us: the form of intuition (space and time), which can be cognized and determined completely *a priori*, and the matter (the physical), or the content, which signifies a something that is encountered in space and time, and which thus contains an existence and corresponds to sensation. With regard to the latter, which can never be given in a determinate manner except empirically, we can have nothing *a priori* except indeterminate concepts of the synthesis of possible sensations insofar as they belong to the unity of apperception (in a possible experience). With regard to the former we can determine our concepts *a priori* in intuition, for we create the objects themselves in space and time through homogeneous<sup>a</sup> synthesis, considering them merely as *quanta*. The former is called the use of reason in accordance with concepts, because we can do nothing further than bring appearances under concepts, according to their real content, which cannot be determined except empirically, i.e., *a posteriori* (though in accord with those concepts as rules of an empirical synthesis); the latter is the use of reason through construction of concepts, because these concepts, since they already apply to an *a priori* intuition, for that very reason can be determinately given in pure intuition *a priori* and without any empirical *data*. To decide about everything that exists (a thing in space or time) whether and how far it is or is not a quantum, whether existence or the lack thereof must be represented in it, how far this something (which fills space or time) is a primary substratum or mere determination, whether it has a relation of its existence to something else as cause or effect, and

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A 724/B 752

A 722/B 750

\* By means of the concept of cause I actually go beyond the empirical concept of an occurrence (that something happens), but not to the intuition that exhibits the concept of cause *in concreto*, rather to the time-conditions in general that may be found to be in accord with the concept of cause in experience. I therefore proceed merely in accordance with concepts, and cannot proceed through construction of concepts, since the concept is a rule of the synthesis of perceptions, which are not pure intuitions and which therefore cannot be given *a priori*.

<sup>a</sup> *gleichförmige*

finally whether with regard to its existence it is isolated or in reciprocal dependence with others; to decide about the possibility, actuality, and necessity of its existence or the opposites thereof: all of this belongs to **rational cognition** from concepts, which is called **philosophical**. But to determine an intuition *a priori* in space (shape), to divide time (duration), or merely to cognize the universal in the synthesis of one and the same thing in time and space and the magnitude of an intuition in general (number) which arises from that: that is a **concern of reason** through construction of the concepts, and is called **mathematical**.

A725/B753 The great good fortune that reason enjoys by means of mathematics leads entirely naturally to the expectation that, if not mathematics itself, then at least its method will also succeed outside of the field of magnitudes, since it brings all of its concepts to intuitions that it can give *a priori* and by means of which, so to speak, it becomes master over nature; while pure philosophy, on the contrary, fumbles around in nature with discursive *a priori* concepts without being able to make their reality intuitive *a priori* and by that means confirm it. Further, the masters of this art do not seem to lack any confidence in themselves, nor does the public seem to lack any great expectations of their talents, should they ever concern themselves about this at all. For since they have hardly ever philosophized about mathematics (a difficult business!), they have never given a thought to the specific difference between the two uses of reason. Rules used customarily and empirically, which they have borrowed from common reason, count as axioms with them. From whence the concepts of space and time with which they busy themselves (as the only original *quanta*) might be derived, they have never concerned themselves, and likewise it seems to them to be useless to investigate the origin of pure concepts of the understanding and the scope of their validity; rather, they merely use them. In all of this they proceed quite correctly, as long as they do not overstep their appointed boundaries, namely those of **nature**. But they slip unnoticed from the field of sensibility to the insecure territory of pure and even transcendental concepts, where they are allowed the ground neither to stand nor swim (*instabilis tellus, innabilis unda*),<sup>a</sup> and can make only perfunctory steps of which time does not preserve the least trace, while on the contrary their progress in mathematics is a high road on which even their most remote descendants can still stride with confidence.

A726/B754

<sup>a</sup> "Earth that cannot be stood upon, water that cannot be swum in" (Ovid, *Metamorphoses*, I.16). The line comes from Ovid's opening image of chaos, in which there are no fixed boundaries: "If there was land and sea, there was no discernible shoreline, no way to walk on the one, or swim or sail in the other. In the gloom and murk, vague shapes appeared for a moment, loomed, and then gave way, unsaying themselves and the world as well." (*The Metamorphoses of Ovid*, tr. David R. Slavitt [Baltimore: Johns Hopkins, 1994], p. 1)

Since we have made it our duty to determine the bounds of pure reason in transcendental use exactly and with certainty, but this sort of endeavor has the peculiarity that, in spite of the most pressing and clearest warnings, it still always lets itself hope that it can stave off having to give up entirely the effort to get beyond the bounds of experience into the charming regions of the intellectual, it is therefore necessary to cut away, as it were, the last anchor of a fantastical hope, and to show that the pursuit of the mathematical method in this sort of cognition cannot offer the least advantage, unless it is that of revealing its own nakedness all the more distinctly, and revealing that mathematics<sup>a</sup> and philosophy are two entirely different things, although they offer each other their hand in natural science, thus that the procedure of the one can never be imitated by that of the other.

Mathematics is thoroughly grounded on definitions, axioms, and demonstrations. I will content myself with showing that none of these elements, in the sense in which the mathematician takes them, can be achieved or imitated by philosophy;<sup>b</sup> and that by means of his method the mathematician can build nothing in philosophy except houses of cards, while by means of his method the philosopher can produce nothing in mathematics but idle chatter, while philosophy consists precisely in knowing its bounds, and even the mathematician, if his talent is not already bounded by nature and limited to his specialty, can neither reject its warnings nor disregard them.

A727/B755

1. On **definitions**.<sup>c,d</sup> As the expression itself reveals, **to define** properly means just to exhibit originally<sup>d</sup> the exhaustive concept of a thing within its boundaries.\* Given such a requirement, an **empirical** concept cannot be defined at all but only **explicated**. For since we have in it only some marks of a certain kind of objects of the senses, it is never certain whether by means of the word that designates the same object

\* **Exhaustiveness** signifies the clarity and sufficiency of marks; **boundaries**, the precision, that is, that there are no more of these than are required for the exhaustive concept; **original**, however, that this boundary-determination is not derived from anywhere else and thus in need of a proof, which would make the supposed definition<sup>e</sup> incapable of standing at the head of all judgments about an object.

<sup>a</sup> *Meßkunst*.

<sup>b</sup> Substituting a semicolon for Kant's period.

<sup>c</sup> *Definitionen*. In this passage Kant prefers the Latinate *Definition* because it is, as he will argue, more precise in meaning than the German *Erklärung*. Throughout this paragraph "definition" will translate *Definition* and "define," *definiren*, unless otherwise noted.

<sup>d</sup> *ursprünglich*

<sup>e</sup> *Erklärung*

A728/B756

one does not sometimes think more of these marks but another time fewer of them. Thus in the concept of **gold** one person might think, besides its weight, color, and ductility, its property of not rusting, while another might know nothing about this. One makes use of certain marks only as long as they are sufficient for making distinctions; new observations, however, take some away and add some, and therefore the concept never remains within secure boundaries. And in any case what would be the point of defining such a concept? – since when, e.g., water and its properties are under discussion, one will not stop at what is intended by the word “water” but rather advance to experiments, and the word, with the few marks that are attached to it, is to constitute only a **designation** and not a concept of the thing; thus the putative definition is nothing other than the determination of the word. Second, strictly speaking no concept given *a priori* can be defined, e.g., substance, cause, right, equity, etc. For I can never be certain that the distinct representation of a (still confused) given concept has been exhaustively developed unless I know that it is adequate to the object. But since the concept of the latter, as it is given, can contain many obscure representations, which we pass by in our analysis though we always use them in application, the exhaustiveness of the analysis of my concept is always doubtful, and by many appropriate examples can only be made probably but never **apodictically** certain. Instead of the expression “definition” I would rather use that of **exposition**,<sup>a</sup> which is always cautious, and which the critic can accept as valid to a certain degree while yet retaining reservations about its exhaustiveness. Since therefore neither empirical concepts nor concepts given *a priori* can be defined, there remain none but arbitrarily thought ones for which one can attempt this trick. In such a case I can always define my concept: for I must know what I wanted to think, since I deliberately made it up, and it was not given to me either through the nature of the understanding or through experience; but I cannot say that I have thereby defined a true object.<sup>9</sup> For if the concept depends upon empirical conditions, e.g., a chronometer,<sup>b,10</sup> then the object and its possibility are not given through this arbitrary concept; from the concept I do not even know whether it has an object, and my explanation<sup>c</sup> could better be called a declaration (of my project) than a definition of an object. Thus there remain no other concepts that are fit for being defined than those containing an arbitrary synthesis which can be constructed *a priori*, and thus only mathematics has definitions. For the object that it thinks it also exhibits *a priori* in intuition, and this can surely contain neither more nor less than

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<sup>a</sup> *Exposition*<sup>b</sup> *Schiffssubr*<sup>c</sup> *Erklärung*

the concept, since through the explanation<sup>a</sup> of the concept the object is originally given, i.e., without the explanation being derived from anywhere else. The German language has for the expressions **exposition**, **explication**, **declaration** and **definition**<sup>b</sup> nothing more than the one word "explanation,"<sup>c,11</sup> and hence we must somewhat weaken the stringency of the requirement by which we denied philosophical explanations the honorary title of "definition," and limit this entire remark to this, that **philosophical definitions come about only as expositions of given concepts, but mathematical ones as constructions of concepts that are originally made**, thus the former come about **only analytically through analysis (the completeness of which is never apodictically certain)**, while the latter come about **synthetically, and therefore make the concept itself, while the former only explain it**. From this it follows:

a) That in philosophy one must not imitate mathematics in putting the definitions first, unless perhaps as a mere experiment. For since they are analyses of given concepts, these concepts, though perhaps only still confused, come first, and the incomplete exposition précedes the complete one, so that we can often infer much from some marks that we have drawn from an as yet uncompleted analysis before we have arrived at a complete exposition, i.e., at a definition; in a word, it follows that in philosophy the definition, as distinctness made precise, must conclude rather than begin the work.\* On the contrary, in mathematics we do not have any concept at all prior to the definitions, as that through which the concept is first given; it therefore must and also always can begin with them.

b) Mathematical definitions can never err. For since the concept is first given through the definition, it contains just that which the defin-

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\* Philosophy is swarming with mistaken definitions, especially those that actually contain elements for definition but are not yet complete. If one would not know what to do with a concept until one had defined it, then all philosophizing would be in a bad way. But since, however far the elements (of the analysis) reach, a good and secure use can always be made of them, even imperfect definitions, i.e., propositions that are not really definitions but are true and thus approximations to them, can be used with great advantage. In mathematics definitions belong *ad esse*,<sup>d</sup> in philosophy *ad melius esse*.<sup>e</sup> Attaining them is fine, but often very difficult. Jurists are still searching for a definition of their concept of right.

<sup>a</sup> *Erklärung*

<sup>b</sup> All Latinate words: "**Exposition, Explikation, Deklaration und Definition.**"

<sup>c</sup> *Erklärung*

<sup>d</sup> to the being

<sup>e</sup> to the improvement of being

ition would think through it. However, although nothing incorrect can occur in its content, nevertheless sometimes, though to be sure only rarely, there can be a defect in the form (of its dress), namely with regard to precision. Thus the common explanation of the circle, that it is a **curved** line every point of which is the same distance from a single one (the center-point), contains the error of unnecessarily introducing the determination **curved**. For it must be a particular theorem, which can be deduced from the definition and easily proved, that every line each point of which is equally distant from a single one is curved (no part of it is straight). Analytical definitions, on the contrary, can err in many ways, either by bringing in marks that really do not lie in the concept or by lacking the exhaustiveness that constitutes what is essential in definitions, since one cannot be so entirely certain of the completeness of their analysis. For this reason the mathematical method of definition cannot be imitated in philosophy.

2. On **axioms**. These are synthetic *a priori* principles, insofar as they are immediately certain. Now one concept cannot be synthetically yet immediately combined with another, since for us to be able to go beyond a concept a third, mediating cognition is necessary. Now since philosophy is merely rational cognition in accordance with concepts, no principle is to be encountered in it that deserves the name of an axiom. Mathematics, on the contrary, is capable of axioms, e.g., that three

**B761** points always lie in a plane, because by means of the construction of concepts in the intuition of the object it can connect the predicates of the latter *a priori* and immediately. A synthetic principle, on the con-

**A733** trary, e.g., the proposition that everything that happens has its cause, can never be immediately certain from mere concepts, because I must always look around for some third thing, namely the condition of time-determination in an experience, and could never directly cognize such a principle immediately from concepts alone. Discursive principles are therefore something entirely different from intuitive ones, i.e., axioms. The former always require a deduction, with which the latter can entirely dispense, and, since the latter are on the same account self-evident, which the philosophical principles, for all their certainty, can never pretend to be, any synthetic proposition of pure and transcendental reason is infinitely less obvious (as is stubbornly said) than the proposition that **Two times two is four**. To be sure, in the Analytic, in the table of the principles of pure understanding, I have also thought of certain axioms of intuition; but the principle that was introduced there was not itself an axiom, but only served to provide the principle<sup>a</sup> of the possibility of axioms in general, and was itself only a principle from concepts. For even the possibility of mathematics must be shown in

<sup>a</sup> *Principium*

transcendental philosophy. Philosophy thus has no axioms and can never simply offer its *a priori* principles as such, but must content itself with justifying their authority through a thorough deduction.

A734/B762

3. On **demonstrations**.<sup>a</sup> Only an apodictic proof, insofar as it is intuitive, can be called a demonstration. Experience may well teach us what is, but not that it could not be otherwise. Hence empirical grounds of proof cannot yield apodictic proof. From *a priori* concepts (in discursive cognition), however, intuitive certainty, i.e., self-evidence,<sup>b</sup> can never arise, however apodictically certain the judgment may otherwise be. Thus only mathematics contains demonstrations, since it does not derive its cognition from concepts, but from their construction, i.e., from the intuition that can be given *a priori* corresponding to the concepts. Even the way algebraists proceed with their equations, from which by means of reduction they bring forth the truth together with the proof, is not a geometrical construction, but it is still a characteristic construction,<sup>c</sup> in which one displays by signs in intuition the concepts, especially of relations<sup>c</sup> of quantities, and, without even regarding the heuristic, secures all inferences against mistakes by placing each of them before one's eyes. Philosophical cognition, on the contrary, must do without this advantage, since it must always consider the universal *in abstracto* (through concepts), while mathematics can assess the universal *in concreto* (in the individual intuition) and yet through pure *a priori* intuition, where every false step becomes visible. Since they can only be conducted by means of mere words (the object in thought), I would therefore prefer to call the former **acroamatic** (discursive) proofs rather than **demonstrations**, which, as the expression already indicates, proceed through the intuition of the object.

A735/B763

Now from all of this it follows that it is not suited to the nature of philosophy, especially in the field of pure reason, to strut about with a dogmatic gait and to decorate itself with the titles and ribbons of mathematics, to whose ranks philosophy does not belong, although it has every cause to hope for a sisterly union with it. These are idle pretensions that can never succeed, but that instead countermand its aim of revealing the deceptions of a reason that misjudges its own boundaries and of bringing the self-conceit of speculation back to modest but thorough self-knowledge<sup>d</sup> by means of a sufficient illumination of our concepts. In its transcendental efforts, therefore, reason cannot look ahead so confidently, as if the path on which it has traveled leads quite directly to the goal, and it must not count so boldly on the premises

<sup>a</sup> Demonstrationen<sup>b</sup> Evidenz<sup>c</sup> Verhältnisse<sup>d</sup> Selbsterkenntnis

A 736/B 764

that ground it as if it were unnecessary for it frequently to look back and consider whether there might not be errors in the progress of its inferences to be discovered that were overlooked in its principles<sup>a</sup> and that make it necessary either to determine them further or else to alter them entirely.

I divide all apodictic propositions (whether they are demonstrable or immediately certain) into **dogmata** and **mathemata**. A direct synthetic proposition from concepts is a **dogma**; such a proposition through construction of concepts, on the contrary, is a **mathema**. Analytic judgments do not really teach us anything more<sup>b</sup> about the object than what the concept that we have of it already contains in itself, since they do not expand cognition beyond the concept of the subject, but only elucidate this concept. They cannot therefore properly be called dogmas (a word which one could perhaps translate as **theorems**).<sup>c</sup> But in accordance with ordinary usage, of the two types of synthetic *a priori* propositions only those belonging to philosophical cognition carry this name, and one would hardly call the propositions of arithmetic or geometry "dogmata." This usage thus confirms the explanation we have given that only judgments from concepts, and not those from the construction of concepts, can be called dogmatic.

A 737/B 765

Now all of pure reason in its merely speculative use contains not a single direct synthetic judgment from concepts. For through ideas, as we have shown, it is not capable of any synthetic judgments that would have objective validity; through concepts of the understanding, however, it certainly erects secure principles, but not directly from concepts, but rather always only indirectly through the relation of these concepts to something entirely contingent, namely **possible experience**; since if this (something as object of possible experience) is presupposed, then they are of course apodictically certain, but in themselves they cannot even be cognized *a priori* (directly) at all. Thus no one can have fundamental insight into the proposition "Everything that happens has its cause" from these given concepts alone. Hence it is not a dogma, although from another point of view, namely that of the sole field of its possible use, i.e., experience, it can very well be proved apodictically. But although it must be proved, it is called a **principle** and not a **theorem**<sup>d</sup> because it has the special property that it first makes possible its ground of proof, namely experience, and must always be presupposed in this.

Now if in the content of the speculative use of pure reason there are

<sup>a</sup> *Principien*

<sup>b</sup> Emphasized in the first edition.

<sup>c</sup> *Lehrsprüche*

<sup>d</sup> *Grundsatz und nicht Lehrsatz*

## The discipline of pure reason in polemical use

no dogmata at all, then any **dogmatic** method, whether it is borrowed from the mathematicians or is of some special kind, is inappropriate per se. For it merely masks mistakes and errors, and deceives philosophy, the proper aim of which is to allow all of the steps of reason to be seen in the clearest light. Nevertheless, the method can always be **systematic**. For our reason itself (subjectively) is a system, but in its pure use, by means of mere concepts, only a system for research in accordance with principles of unity, for which **experience** alone can give the matter. Of the special method of a transcendental philosophy, however, nothing can here be said, since we are concerned only with a critique of the circumstances of our faculty – whether we can build at all, and how high we can carry our building with the materials that we have (the pure *a priori* concepts).

A738/B766

### First Chapter Second Section

#### The discipline of pure reason with regard to its polemical use.

Reason must subject itself to critique in all its undertakings, and cannot restrict the freedom of critique through any prohibition without damaging itself and drawing upon itself a disadvantageous suspicion. Now there is nothing so important because of its utility, nothing so holy, that it may be exempted from this searching review and inspection, which knows no respect for persons. The very existence<sup>a</sup> of reason depends upon this freedom, which has no dictatorial authority, but whose claim is never anything more than the agreement of free citizens, each of whom must be able to express his reservations, indeed even his *veto*, without holding back.

A739/B767

But now although reason can never **refuse** critique, it does not always have cause to **shrink** from it. Pure reason in its dogmatic (not mathematical) use is not, however, so conscious of the most exact observation of its supreme laws that it can appear before the critical eye of a higher and judicial reason except with modesty, indeed with a complete renunciation of all pretensions to dogmatic authority.

But it is quite different if it does not have to deal with the censure of a judge, but with the claims of its fellow citizens, against which it has merely to defend itself. For since the latter would be just as dogmatic, though in denial, as reason would be in its affirmation, there can be a justification *κατ' ἄνθρωπον*,<sup>b</sup> which secures it against all interference and provides it with a title to its possession that need shrink from no

<sup>a</sup> Existenz

<sup>b</sup> ad hominem (i.e., according to the person)

foreign pretensions, even though it cannot itself be sufficiently proved  
 $\chi\alpha\tau'$  ἀλήθειαν.<sup>a</sup>

Now by the polemical use of pure reason I understand the defense of its propositions against dogmatic denials of them. Here the issue is not whether its own assertions might perhaps also be false, but only that no one can ever assert the opposite with apodictic certainty (or even only with greater plausibility). For in this case we do not hold our possession merely by sufferance if we have a title to it, even if not a sufficient one, and it is completely certain that no one can ever prove the unlawfulness of this possession.

It is worrisome and depressing that there should be an antithetic of pure reason at all, and that pure reason, though it represents the supreme court of justice for all disputes, should still come into conflict with itself. We had such an apparent antithetic of reason before us above,<sup>13</sup> to be sure, but it turned out that it rested on a misunderstanding, namely that of taking, in accord with common prejudice, appearances for things in themselves, and then demanding an absolute completeness in their synthesis, in one or another way (which were both equally impossible), which could hardly be expected in the case of appearances. There was thus in that case no real **contradiction of reason** with itself in the propositions "The series of appearances **given in themselves** has an absolutely first beginning" and "This series is absolutely and **in itself** without any beginning"; for both propositions are quite compatible, since **appearances**, as regards their existence (as appearances) **in themselves** are nothing at all, i.e., something contradictory, and thus their presupposition must naturally be followed by contradictory consequences.

However, such a misunderstanding cannot be alleged and the conflict of reason thereby set aside if, say, it is asserted theistically **There is a highest being** and asserted atheistically, on the contrary, **There is no highest being**, or when it is asserted, in psychology, "Everything that thinks is of absolutely persistent unity and therefore distinct from all transitory material unity," against which someone else asserts, "The soul is not an immaterial unity and cannot be exempted from all transitoriness." For the object of the question is here free of anything foreign that contradicts its nature, and the understanding is concerned only with **things in themselves** and not with appearances. There would thus certainly be a genuine conflict here, if only pure reason had anything to say on the negative side that would approximate the ground for an assertion; for as far as the critique of the grounds of proof of the dogmatic affirmations is concerned, one can very well concede it without

<sup>a</sup> according to the truth

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thereby giving up these propositions, which still have at least the interest of reason in their behalf, to which the opponent cannot appeal at all.

I am not, to be sure, of the opinion that excellent and thoughtful men (e.g., Sulzer),<sup>14</sup> aware of the weakness of previous proofs, have so often expressed, that one can still hope someday to find self-evident demonstrations of the two cardinal propositions of our pure reason: there is a God, and there is a future life. Rather, I am certain that this will never happen. For whence will reason derive the ground for such synthetic assertions, which are not related to objects of experience and their inner possibility? But it is also apodictically certain that no human being will ever step forward who could assert the **opposite** with the least plausibility, let alone assert it dogmatically. For since he could only establish this through pure reason, he would have to undertake to prove that a highest being or the thinking subject in us as pure intelligence is **impossible**. But whence will he derive the knowledge that would justify him in judging synthetically about things beyond all possible experience? We can therefore be entirely unconcerned that somebody will someday prove the opposite; we therefore do not have to think up scholastic proofs, but can always assume these propositions, which are quite consistent with the speculative interest of our reason in its empirical use and are, moreover, the only means for uniting this with the practical interest. For the opponent (who cannot here be considered a mere critic) we have our *non liquet*<sup>a</sup> ready, which must unfailingly confound him, while we do not need to refute his retort, for we always have in reserve the subjective maxims of reason, which he necessarily lacks, and under their protection we can regard all his shadow-boxing with tranquility and indifference.

Thus there is properly no antithetic of pure reason at all. For the only battleground for it would have to be sought in the field of pure theology and psychology; but this ground will bear no warrior in full armor and equipped with weapons that are to be feared. He can only step forward with ridicule and boasting, which can be laughed at like child's play. This is a comforting remark, which gives reason courage again; for on what else could it rely, if it, which is called to do away with all errors, were itself ruined, without any hope for peace and tranquil possession?

Everything that nature itself arranges is good for some aim. Even poisons serve to overpower other poisons which are generated in our own humors,<sup>b</sup> and therefore may not be omitted from a complete collection of cures (medicines). The objections against the suasions and the self-conceit of our purely speculative reason are themselves put

A 742 / B 770

A 743 / B 771

<sup>a</sup> I.e., the verdict "not proved."

<sup>b</sup> *Säften*, i.e., bodily liquids, or the four humors of premodern medicine.

A 744 / B 772

forth by the nature of this reason, and they must therefore have their good vocation<sup>a</sup> and aim, which one must not cast to the wind. Why has providence set many objects, although they are intimately connected with our highest interest, so high that it is barely granted to us to encounter them in an indistinct perception, doubted even by ourselves, through which our searching glance is more enticed than satisfied? Whether it is useful to venture determinate answers with regard to such views is at least doubtful, and perhaps even dangerous. But it is always and without any doubt useful to grant reason full freedom in its search as well as its examination, so that it can take care of its own interest without hindrance, which is promoted just as much by setting limits to its insights as by expanding them, and which always suffers if foreign hands intervene to lead it forcibly to aims contrary to its natural path.

Thus let your opponent speak only reason, and fight him solely with weapons of reason. For the rest, do not worry about the good cause<sup>b</sup> (of practical reason), for that never comes into play in a merely speculative dispute. In this case the dispute reveals nothing but a certain antinomy of reason, which, since it depends upon its nature, must necessarily be heard and examined. The conflict cultivates reason by the consideration of its object on both sides, and corrects its judgment by thus limiting it. What is here in dispute is not the **matter**<sup>c</sup> but the **tone**. For enough remains left to you to speak the language, justified by the sharpest reason, of a firm **belief**, even though you must surrender that of **knowledge**.

A 745 / B 773

If one were to ask the cool-headed David Hume, especially constituted for equilibrium of judgment, "What moved you to undermine, by means of reservations brooded on with so much effort, the persuasion, so comforting and useful for humans, that the insight of their reason is adequate for the assertion and determinate concept of a highest being?",<sup>15</sup> he would answer: "Nothing but the intention of bringing reason further in its self-knowledge,<sup>d</sup> and at the same time a certain aversion to the coercion which one would exercise against reason by treating it as great and yet at the same time preventing a free confession of its weaknesses, which become obvious to it in the examination of itself." But if, on the contrary, you were to ask Priestley,<sup>16</sup> who is devoted only to the principles of the **empirical** use of reason and is disinclined to all transcendental speculation, what sort of motives he had for tearing down two such pillars of all religion as the freedom and immortality of our soul (the hope of a future life is according to him merely the expectation of a miracle of resurrection), he, who is himself a pious and

<sup>a</sup> *Bestimmung*<sup>b</sup> *Sache*, used in this sense throughout the remainder of this section.<sup>c</sup> *Sache*<sup>d</sup> *Selbsterkenntnis*

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eager teacher of religion, would not be able to answer anything other than: the interest of reason, which is diminished by the exemption of certain objects from the laws of material nature, which are the only ones that we can know and determine with precision. It would seem unfair to decry the latter, who knew how to unite his paradoxical assertion with the aim of religion, and to do injury to a well-meaning man because he could not find his bearings as soon as he left the field of theory and nature. But this favor must likewise be shown to the no less well-intentioned Hume, unblemished in his moral character, who cannot forsake his abstract speculation because he rightly holds that its object lies entirely beyond the boundaries of natural science, in the field of pure ideas.

A 746 / B 774

Now what is to be done, especially in regard to the danger which seems to threaten the common good from this quarter? Nothing is more natural, nothing more equitable than the decision that you have to make. Let these people do what they want; if they exhibit talent, if they exhibit deep and new research, in a word, if only they exhibit reason, then reason always wins. If you grasp at means other than uncoerced reason, if you cry high treason, if you call together the public, which understands nothing of such subtle refinements, as if they were to put out a fire, then you make yourself ridiculous. For the issue is not what is advantageous or disadvantageous to the common good in these matters, but only how far reason can get in its speculation in abstraction from all interest, and whether one can count on such speculation at all or must rather give it up altogether in favor of the practical. Thus instead of charging in with a sword, you should instead watch this conflict peaceably from the safe seat of critique, a conflict which must be exhausting for the combatants but entertaining for you, with an outcome that will certainly be bloodless and advantageous for your insight. For it is quite absurd to expect enlightenment from reason and yet to prescribe to it in advance on which side it must come out. Besides, reason is already so well restrained and held within limits by reason itself that you do not need to call out the guard to put up civil resistance against that party whose worrisome superiority seems dangerous to you. In this dialectic there is no victory about which you would have cause to worry.

A 747 / B 775

Reason also very much needs such a conflict, and it is to be wished that it had been undertaken earlier and with unlimited public permission. For then a mature critique would have come about all the earlier, at the appearance of which all of this controversy would have had to disappear, since the disputants would have learned insight into the illusion and prejudices that have disunited them.

There is a certain dishonesty<sup>a</sup> in human nature, which yet in the end,

<sup>a</sup> *Unlauterkeit*

A748/B776

like everything else that comes from nature, must contain a tendency to good purposes, namely an inclination to hide its true dispositions and to make a show of certain assumed ones that are held to be good and creditable. It is quite certain that through this propensity to conceal themselves as well as to assume an appearance that is advantageous for them humans have not merely **civilized** themselves but gradually **moralized** themselves to a certain degree, since no one could penetrate the mask of respectability, honorableness, and propriety, and one therefore found a school for self-improvement in the supposedly genuine examples of the good which he saw around himself. Yet this tendency<sup>a</sup> to pretend to be better than one is and to express dispositions<sup>b</sup> that one does not have serves as it were only **provisionally** to bring the human being out of his crudeness and first allow him to assume at least the **manner** of the good, which he recognizes; for later, when the genuine principles have finally been developed and incorporated into his way of thought, that duplicity must gradually be vigorously combated, for otherwise it corrupts the heart, and good dispositions cannot grow among the rampant weeds of fair appearance.<sup>c</sup>

I am sorry to perceive the very same dishonesty, misrepresentation, and hypocrisy even in the utterances of the speculative way of thinking, where human beings have far fewer hindrances to and no advantage at all in forthrightly confessing their thoughts openly and unreservedly.

A749/B777

For what can be more disadvantageous to insight than falsely communicating even mere thoughts, than concealing doubts which we feel about our own assertions, or giving a semblance of self-evidence to grounds of proof which do not satisfy ourselves? As long as these machinations arise merely from private vanity (which is usually the case in speculative judgments, which have no special interest and are not readily liable to apodictic certainty), then the vanity of others resists them **with public approval**, and in the end things end up at the same point to which they would have been brought, though much earlier, by the most honest disposition and sincerity. But where the public holds that subtle sophists<sup>d</sup> are after nothing less than to shake the foundation of the public welfare, then it seems not only prudent but also permissible and even creditable to come to the aid of the good cause with spurious grounds rather than to give its putative enemies even the advantage of lowering our voice to the modesty of a merely practical conviction and necessitating us to admit the lack of speculative and apodictic certainty. I should think, however, that there is nothing in the

<sup>a</sup> Anlage<sup>b</sup> Gesinnungen<sup>c</sup> des schönen Scheins<sup>d</sup> Vernünftiger

world less compatible with the aim of maintaining a good cause than duplicity, misrepresentation, and treachery. That in weighing up the rational grounds of a mere speculation everything must proceed honorably seems to be the least that one can demand. If one could securely count even on this minimum, however, then the dispute of speculative reason about the important questions of God, immortality (of the soul), and freedom would either have long been decided or else would be brought to an end very soon. Thus honesty of disposition often stands in an inverse relation<sup>a</sup> to the goodness of the cause itself, and the latter has perhaps more upright and sincere opponents than defenders.

A750/B778

I therefore presuppose readers who would not want a just cause to be defended with injustice. Now with regard to them it is already decided that, in accordance with our principles of critique, if one looks not to what happens but to what properly should happen, then there really must not be any polemic of pure reason. For how can two people conduct a dispute about a matter the reality of which neither of them can exhibit in an actual or even in a merely possible experience, about the idea of which he only broods in order to bring forth from it something **more** than an idea, namely the actuality of the object itself? By what means would they escape from the dispute, since neither can make his cause directly comprehensible and certain, but rather can only attack and refute that of his opponent? For this is the fate of all assertions of pure reason: that since they go beyond the conditions of all possible experience, outside of which no document of truth is ever to be encountered, yet at the same time must make use of the laws of the understanding, which are destined merely for empirical use but without which no step may be taken in synthetic thought, they must always be exposed to the enemy, and each can take advantage of the exposure of his enemy.

A751/B779

One can regard the critique of pure reason as the true court of justice for all controversies of pure reason; for the critique is not involved in these disputes, which pertain immediately to objects,<sup>b</sup> but is rather set the task of determining and judging what is lawful<sup>c</sup> in reason in general in accordance with the principles of its primary institution.

Without this, reason is as it were in the state of nature, and it cannot make its assertions and claims valid or secure them except through war. The critique, on the contrary, which derives all decisions from the ground-rules of its own constitution, whose authority no one can doubt, grants us the peace of a state of law,<sup>d</sup> in which we should not conduct

<sup>a</sup> Verhältnisse<sup>b</sup> Objekte<sup>c</sup> die Rechtsame<sup>d</sup> eines gesetzlichen Zustandes

A752/B780

our controversy except by **due process**. What brings the quarrel in the state of nature to an end is a **victory**, of which both sides boast, although for the most part there follows only an uncertain peace, arranged by an authority in the middle; but in the state of law it is the **verdict**, which, since it goes to the origin of the controversies themselves, must secure a perpetual peace. And the endless controversies of a merely dogmatic reason finally make it necessary to seek peace in some sort of critique of this reason itself, and in a legislation grounded upon it; just as Hobbes asserted, the state of nature is a state of injustice and violence, and one must necessarily leave it in order to submit himself to the lawful coercion which alone limits our freedom in such a way that it can be consistent with the freedom of everyone else and thereby with the common good.<sup>17</sup>

A753/B781

To this freedom, then, there also belongs the freedom to exhibit the thoughts and doubts which one cannot resolve oneself for public judgment without thereupon being decried as a malcontent and a dangerous citizen. This lies already in the original right of human reason, which recognizes no other judge than universal human reason itself, in which everyone has a voice; and since all improvement of which our condition is capable must come from this, such a right is holy, and must not be curtailed. It is also very unwise to denounce as dangerous certain daring assertions or audacious attacks upon that which already has on its side the approval of the greatest and best part of the public: for that would be to give them an importance that they should not have at all. When I hear that an uncommon mind has demonstrated away the freedom of the human will, the hope of a future life, and the existence of God, I am eager to read the book, for I expect that his talent will advance my insights. I am completely certain in advance that he will not have accomplished any of this, not because I believe myself already to be in possession of incontrovertible proofs of these important propositions, but rather because the transcendental critique, which has revealed to me the entire stock of our pure reason, has completely convinced me that just as pure reason is entirely inadequate for affirmative assertions in this field, even less will it know what to do in order to be able to assert something negative about these questions. For where would the supposed free-thinker derive his knowledge that, there is, e.g., no highest being? This proposition lies outside the field of possible experience, and therefore also beyond the boundaries of all human insight. The dogmatic defender of the good cause against this enemy I would not read at all, because I know in advance that he will only attack the illusory grounds of the other in order to gain entry for his own, and that an everyday illusion does not give as much material for new observations as an alien one that is sensibly thought out. The enemy of religion, on the contrary, who is dogmatic in his own way, would give my

A754/B782

The discipline of pure reason in polemical use

critique desirable occupation and occasion for some refinement of its principles, without his principles being anything to fear in the least.

But should not the young, at least, who are entrusted to academic instruction, be warned about writings of that sort, and be protected from premature acquaintance with such dangerous propositions, until their power of judgment has matured or rather the doctrine that one would ground in them has become firmly rooted, in order vigorously to resist all persuasion to the contrary, from wherever it might come?

If matters of pure reason had to be left to dogmatic procedures, and if the opponents really had to be disposed of polemically, i.e., in such a way that one must enter into battle armed with grounds of proof against opposed assertions, then nothing would be more advisable **in the short run**, but at the same time nothing more vain and fruitless **in the long run**, than to place the reason of the young under tutelage for a long time and protect it against seduction for at least as long. But when, subsequently, either curiosity or the fashion of the age should put writings of that sort in their hands, would that youthful persuasion then hold fast? He who brings with him nothing but dogmatic weapons to resist the attacks of his opponent, and who does not know how to develop the hidden dialectic which lies no less in his own breast than in that of his counterpart, sees illusory grounds that have the advantage of novelty step forth against illusory grounds that no longer have that advantage but which instead arouse the suspicion of having abused the credulity of the young. He believes that he cannot better show that he has outgrown the discipline of childhood than by setting himself above those well-intended warnings, and, accustomed to dogmatism, he takes long drafts of the poison that dogmatically corrupts his principles.

Exactly the opposite of that which has just been recommended must take place in academic education, although, to be sure, only under the presupposition of a thorough instruction in the critique of pure reason. For in order to put the principles<sup>a</sup> of the latter into practice as early as possible and to show their adequacy against the greatest dialectical illusion, it is absolutely necessary to direct the attacks that would be so fearsome for the dogmatist against the reason of the student, which is still weak but is enlightened by critique, and allow him to make the experiment of examining the groundless assertions of his opponents one by one in light of those principles. It cannot be difficult for him to dissolve those arguments into thin air, and thus he feels early his own power to defend himself fully against harmful deceptions of that sort, which must in the end lose all their plausibility<sup>b</sup> for him. But now whether the very same blows that bring down the edifice of the enemy

A755/B783

A756/B784

<sup>a</sup> *Principien*

<sup>b</sup> *Schein*

must also be just as damaging to his own speculative structure, should he think of erecting anything of the sort: about that he is entirely unconcerned, because he does not need to dwell in that, but rather still has before him a prospect in the practical field, where with good ground he can hope for a firmer terrain on which to erect his rational and salutary system.

There is accordingly no real polemic in the field of pure reason. Both parties fence in the air and wrestle with their shadows, for they go beyond nature, where there is nothing that their dogmatic grasp can seize and hold. Fight as they may, the shadows that they cleave apart grow back together in an instant, like the heroes of Valhalla, to amuse themselves anew in bloodless battles.

However, there is also no permissible skeptical use of pure reason, which one could call the principle of its neutrality in all controversies. To incite reason against itself, to hand it weapons on both sides, and then to watch its heated struggle quietly and scornfully is not seemly from a dogmatic point of view, but rather has the look of a spiteful and malicious cast of mind. If, however, one takes regard of the inexorable deception and bragging of the sophists, who will not be moderated by any critique, then there is really no other course but to set the boasting of one side against another, which stands on the same rights, in order at least to shock reason, by means of the resistance of an enemy, into raising some doubts about its pretensions and giving a hearing to the critique. But for reason to leave just these doubts standing, and to set out to recommend the conviction and confession of its ignorance, not merely as a cure for dogmatic self-conceit but also as the way in which to end the conflict of reason with itself, is an entirely vain attempt, by no means suitable for arranging a peaceful retirement for reason; rather it is at best only a means for awaking it from its sweet dogmatic dreams in order to undertake a more careful examination of its condition. Since, however, this skeptical manner of withdrawing from a tedious quarrel of reason seems to be the shortcut, as it were, for arriving at enduring philosophical tranquility, or at least the high road that is happily recommended by those who would give a philosophical appearance to a scornful contempt for all investigations of this kind, I find it necessary to exhibit this manner of thought in its true light.

A757/B785

A758/B786

On the  
impossibility of a skeptical satisfaction  
of pure reason that is divided against itself.<sup>18</sup>

The consciousness of my ignorance (if this is not at the same time known to be necessary) should not end my inquiries, but is rather the

proper cause to arouse them. All ignorance is either that of things<sup>a</sup> or of the determination and boundaries of my cognition. Now if the ignorance is contingent, then in the first case it must drive me to investigate the things (objects) **dogmatically**, in the second case to investigate the boundaries of my possible cognition **critically**. But that my ignorance is absolutely necessary and hence absolves me from all further investigation can never be made out empirically, from **observation**, but only critically, by **getting to the bottom of**<sup>b</sup> the primary sources of our cognition. Thus the determination of the boundaries of our reason can only take place in accordance with *a priori* grounds; its limitation, however, which is a merely indeterminate cognition of an ignorance that is never completely to be lifted, can also be cognized *a posteriori*, through that which always remains to be known even with all of our knowledge. The former cognition of ignorance, which is possible only by means of the critique of reason itself, is thus **science**, the latter is nothing but **perception**, about which one cannot say how far the inference from it might reach. If I represent the surface of the earth (in accordance with sensible appearance)<sup>c</sup> as a plate, I cannot know how far it extends. But experience teaches me this: that wherever I go, I always see a space around me in which I could proceed farther; thus I cognize the limits of my actual knowledge of the earth<sup>d</sup> at any time, but not the boundaries of all possible description of the earth. But if I have gotten as far as knowing that the earth is a sphere and its surface the surface of a sphere, then from a small part of the latter, e.g., from the magnitude of one degree, I can cognize its diameter and, by means of this, the complete boundary, i.e., surface of the earth, determinately and in accordance with *a priori* principles;<sup>e</sup> and although I am ignorant in regard to the objects that this surface might contain, I am not ignorant in regard to the magnitude and limits of the domain that contains them.

The sum total of all possible objects for our cognition seems to us to be a flat surface, which has its apparent horizon, namely that which comprehends its entire domain and which is called by us the rational concept of unconditioned totality. It is impossible to attain this empirically, and all attempts to determine it *a priori* in accordance with a certain principle<sup>f</sup> have been in vain. Yet all questions of our pure reason pertain to that which might lie outside this horizon or in any case at least on its borderline.

A759/B787

A760/B788

<sup>a</sup> Sachen<sup>b</sup> Ergründung<sup>c</sup> Schein<sup>d</sup> Erdkunde (i.e., geography)<sup>e</sup> Principien<sup>f</sup> Prinzip

## Doctrine of Method. Ch. I. Sec. II

The famous David Hume was one of these geographers of human reason, who took himself to have satisfactorily disposed of these questions by having expelled them outside the horizon of human reason, which however he could not determine. He dwelt primarily on the principle of causality, and quite rightly remarked about that that one could not base its truth (indeed not even the objective validity of the concept of an efficient cause in general) on any insight at all, i.e., *a priori* cognition, and thus that the authority of this law is not constituted in the least by its necessity, but only by its merely general usefulness in the course of experience and a subjective necessity arising therefrom, which he called custom.<sup>19</sup> Now from the incapacity of our reason to make a use of this principle that goes beyond all experience, he inferred the nullity of all pretensions of reason in general to go beyond the empirical.

A761/B789 One can call a procedure of this sort, subjecting the *facta* of reason to examination and when necessary to blame, the **censorship** of reason. It is beyond doubt that this censorship inevitably leads to **doubt** about all transcendent use of principles. But this is only the second step, which is far from completing the work. The first step in matters of pure reason, which characterizes its childhood, is **dogmatic**. The just mentioned second step is **skeptical**, and gives evidence<sup>a</sup> of the caution of the power of judgment sharpened by experience. Now, however, a third step is still necessary, which pertains only to the mature and adult power<sup>b</sup> of judgment, which has at its basis firm maxims of proven universality, that, namely, which subjects to evaluation not the *facta* of reason but reason itself, as concerns its entire capacity<sup>c</sup> and suitability for pure *a priori* cognitions; this is not the censorship but the **critique** of pure reason, whereby not merely **limits** but rather the determinate **boundaries** of it – not merely ignorance in one part or another but ignorance in regard to all possible questions of a certain sort – are not merely suspected but are proved from principles.<sup>d</sup> Thus skepticism is a resting-place for human reason, which can reflect upon its dogmatic peregrination and make a survey of the region in which it finds itself in order to be able to choose its path in the future with greater certainty, but it is not a dwelling-place for permanent residence; for the latter can only be found in a complete certainty, whether it be one of the cognition of the objects themselves or of the boundaries within which all of our cognition of objects is enclosed.

A762/B790

Our reason is not like an indeterminately extended plane, the limits of

<sup>a</sup> zeugt; in A, zeigt. If zeugt is a misprint introduced in B, then the translation would be "shows."

<sup>b</sup> männlichen

<sup>c</sup> Vermögen

<sup>d</sup> Prinzipien

## The discipline of pure reason in polemical use

which one can cognize only in general, but must rather be compared with a sphere, the radius of which can be found out from the curvature of an arc on its surface (from the nature of synthetic *a priori* propositions), from which its content and its boundary can also be ascertained with certainty. Outside this sphere (field of experience) nothing is an object<sup>a</sup> for it; indeed even questions about such supposed objects concern only subjective principles<sup>b</sup> of a thoroughgoing determination of the relations<sup>c</sup> that can obtain among the concepts of understanding inside of this sphere.

We are really in possession of synthetic *a priori* cognition, as is established by the principles of understanding, which anticipate experience. Now if someone cannot even make the possibility of these comprehensible to himself, he may certainly begin to doubt whether they are really present in us *a priori*; but he cannot declare this to be an impossibility through the mere power of the understanding, and declare to be nugatory all of the steps that reason takes in accordance with their guidance. He can only say: If we had insight into their origin and authenticity, then we would be able to determine the domain and the boundaries of our reason; but until this has happened, all assertions of the latter are shots in the dark. And in such a way a thoroughgoing doubt of all dogmatic philosophy that goes its way without any critique of reason itself would be entirely well founded; yet reason cannot on that account be entirely denied such a progress, if it is prepared and secured through better groundwork.<sup>d</sup> For one thing, all the concepts, indeed all the questions that pure reason lays before us, lie not in experience but themselves in turn only in reason, and they must therefore be able to be solved and their validity or nullity must be able to be comprehended. We are, also, not justified in repudiating these problems under the excuse of our incapacity, as if their solution really lay in the nature of things, and in rejecting further investigation, since reason has given birth to these ideas from its own womb alone, and is therefore liable to give account of either their validity or their dialectical illusion.

All skeptical polemicizing is properly directed only against the dogmatist, who continues gravely along his path without any mistrust of his original objective principles,<sup>e</sup> i.e., without critique, in order to unhinge his concept<sup>f</sup> and bring him to self-knowledge.<sup>g</sup> In itself it settles nothing at all about what we can know and what by contrast we cannot

A 763 / B 791

<sup>a</sup> Object

<sup>b</sup> Prinzipien

<sup>c</sup> Verhältnisse

<sup>d</sup> Grundlegung

<sup>e</sup> Prinzipien

<sup>f</sup> Concept

<sup>g</sup> Selbsterkenntnis

A 764 / B 792

know. All failed dogmatic attempts of reason are *facta*, which it is always useful to subject to censure. But this cannot decide anything about reason's expectations of hoping for better success in its future efforts and making claims to that; mere censure can therefore never bring to an end the controversy about what is lawful<sup>a</sup> in human reason.

Since Hume is perhaps the most ingenious of all skeptics, and is incontrovertibly the preeminent one with regard to the influence that the skeptical procedure can have on awakening a thorough examination of reason, it is well worth the trouble to make clear, to the extent that is appropriate to my aim, the path of his inferences and the aberrations of such an insightful and valuable man, which nevertheless began on the trail of truth.

Hume perhaps had it in mind, although he never fully developed it, that in judgments of a certain kind we go beyond our concept of the object. I have called this sort of judgment **synthetic**. There is no difficulty about how, by means of experience, I can go beyond the concepts that I possess thus far. Experience is itself a synthesis of perceptions that augments my concept which I have by means of one perception by the addition of others. But we also believe ourselves to be able to go beyond our concepts *a priori* and to amplify our cognition. We attempt to do this either through pure understanding, with regard to that which can at least be an **object<sup>b</sup> of experience**, or even through pure reason, with regard to such properties of things, or even with regard to the existence of such objects, that can never come forth in experience. Our skeptic did not distinguish these two kinds of judgments, as he should have, and for that reason held this augmentation of concepts out of themselves and the parthenogenesis, so to speak, of our understanding (together with reason), without impregnation by experience, to be impossible; thus he held all of its supposedly *a priori* principles<sup>c</sup> to be merely imagined, and found that they are nothing but a custom arising from experience and its laws, thus are merely empirical, i.e., intrinsically contingent rules, to which we ascribe a supposed necessity and universality. However, for the assertion of this disturbing proposition he referred to the universally acknowledged principle of the relationship of cause to effect. Since in that case no faculty of understanding can lead us from the concept of a thing to the existence of something else which is thereby universally and necessarily given, he believed that he could infer from this that without experience we have nothing that could augment our concept and justify us in making such a judgment, which amplifies itself *a priori*. That the sunlight that illuminates the wax also melts it, though it hardens clay, under-

<sup>a</sup> die Rechtsame

<sup>b</sup> Object

<sup>c</sup> Principien

A 766 / B 794

standing could not discover let alone lawfully infer from the concepts that we antecedently have of these things, and only experience could teach us such a law. In the transcendental logic, on the contrary, we have seen that although of course we can never **immediately** go beyond the content of the concept which is given to us, nevertheless we can still cognize the law of the connection with other things completely *a priori*, although in relation to a third thing, namely **possible** experience, but still *a priori*. Thus if wax that was previously firm melts, I can cognize *a priori* that something must have preceded (e.g., the warmth of the sun) on which this has followed in accordance with a constant law, though without experience, to be sure, I could **determinately** cognize neither the cause from the effect nor the effect from the cause *a priori* and without instruction from experience. He therefore falsely inferred from the contingency of our determination **in accordance with the law** the contingency of **the law itself**, and he confused going beyond the concept of a thing to possible experience (which takes place *a priori* and constitutes the objective reality of the concept) with the synthesis of the objects of actual experience, which is of course always empirical; thereby, however, he made a principle<sup>a</sup> of affinity, which has its seat in the understanding and asserts necessary connection, into a rule of association, which is found merely in the imitative imagination and which can present only contingent combinations, not objective ones at all.

A767/B795

The skeptical aberrations of this otherwise extremely acute man, however, arose primarily from a failing that he had in common with all dogmatists, namely, that he did not systematically survey all the kinds of *a priori* synthesis of the understanding. For had he done so, he would have found, not to mention any others here, that e.g., **the principle of persistence** is one that anticipates experience just as much as that of causality. He would thereby have been able to mark out determinate boundaries for the understanding that expands itself *a priori* and for pure reason. But since he merely **limits** our understanding without **drawing boundaries** for it, and brings about a general distrust but no determinate knowledge<sup>b</sup> of the ignorance that is unavoidable for us, by censuring certain principles of the understanding without placing this understanding in regard to its entire capacity<sup>c</sup> on the scales of critique, and, while rightly denying to understanding what it really cannot accomplish, goes further, and disputes all its capacity<sup>d</sup> to expand itself *a priori* without having assessed this entire capacity, the same thing happens to him that always brings down skepticism, namely, he is himself doubted, for his objections

<sup>a</sup> *Princip*<sup>b</sup> *Kenntnis*<sup>c</sup> *Vermögen*<sup>d</sup> *Vermögen*

A768/B796

rest only on *facta*, which are contingent, but not on principles<sup>a</sup> that could effect a necessary renunciation of the right to dogmatic assertions.

Further, since he does not know the difference between the well founded claims of the understanding and the dialectical pretensions of reason, against which his attacks are chiefly directed, reason, whose entirely peculiar momentum is not in the least disturbed, but only hindered, does not feel that the room for its expansion is cut off, and although it is annoyed here and there it can never be entirely dissuaded from its efforts. For it is armed to parry attacks, and is all the more obstinate in attempting to carry out its demands. But a complete overview of its entire capacity and the conviction arising from that of the certainty of a small possession, even in case of the vanity of higher claims, put an end to all dispute, and move it to rest satisfied with a limited but undisputed property.

A769/B797

Against the uncritical dogmatist, who has not measured the sphere of his understanding and thus has not determined the boundaries of his possible cognition in accordance with principles,<sup>b</sup> who therefore does not already know in advance how much he is capable of but thinks he can find it out through mere experiments, these skeptical attacks are not merely dangerous but are even disastrous. For if he is hit in a single assertion that he cannot justify or make plausible by means of principles,<sup>c</sup> then suspicion falls upon all of them, however persuasive they might otherwise be.

And thus the skeptic is the taskmaster of the dogmatic sophist for a healthy critique of the understanding and of reason itself. When he has gotten this far he does not have to fear any further challenge, for he then distinguishes his possession from that which lies entirely outside it, to which he makes no claims and about which he cannot become involved in any controversies. Thus the skeptical procedure is not, to be sure, itself satisfying for questions of reason, but it is nevertheless preparatory for arousing its caution and showing it fundamental means for securing it in its rightful possessions.

First Chapter  
Third Section  
The  
discipline of pure reason with regard  
to hypotheses.

Since, then, through the critique of our reason we finally know that we cannot in fact know anything at all in its pure and speculative use,

<sup>a</sup> *Principien*

<sup>b</sup> *Principien*

<sup>c</sup> *Principien*

should it not then open up an all the wider field for **hypotheses**, since it is at least granted to reason to invent<sup>a</sup> and to opine, if not to assert?

If the imagination is not simply **to enthuse** but is, under the strict oversight of reason, **to invent**,<sup>b</sup> something must always first be fully certain and not invented,<sup>c</sup> or a mere opinion, and that is the **possibility** of the object itself. In that case it is permissible to take refuge in opinion concerning the actuality of the object, which opinion, however, in order not to be groundless, must be connected as a ground of explanation with that which is actually given and consequently certain, and it is then called an **hypothesis**.<sup>20</sup>

A 770 / B 798

Now since we cannot construct *a priori* the least concept of the possibility of dynamical connection, and the category of the pure understanding does not serve for thinking up such a thing but only for understanding it where it is encountered in experience, we cannot originally cook up,<sup>d</sup> in accordance with these categories, a single object with any new and not empirically given property and ground a permissible hypothesis on it; for this would be to found reason on empty figments of the brain rather than concepts of things. Thus we are not allowed to think up any sort of new original forces, e.g., an understanding that is capable of intuiting its object without sense or an attractive force without any contact, or a new kind of substance, e.g., one which would be present in space without impenetrability; consequently we also cannot conceive of any community of substances that would be different from anything that experience provides;<sup>21</sup> no presence except in space, no duration except merely in time. In a word: it is only possible for our reason to use the conditions of possible experience as conditions of the possibility of things; but it is by no means possible for it as it were to create new ones, independent of these conditions, for concepts of this sort, although free of contradiction, would nevertheless also be without any object.

A 771 / B 799

The concepts of reason are, as we have said, mere ideas, and of course have no object in any sort of experience, but also do not on that account designate objects that are invented<sup>e</sup> and at the same time thereby assumed to be possible. They are merely thought problematically, in order to ground regulative principles<sup>f</sup> of the systematic use of the understanding in the field of experience in relation to them (as heuristic fictions). If one departs from this, they are mere thought-entities, the

<sup>a</sup> *dichten*<sup>b</sup> *dichten*<sup>c</sup> *erdichtet*<sup>d</sup> *aussinnen*<sup>e</sup> *gedichtete*<sup>f</sup> *Prinzipien*

A 772 / B 800

possibility of which is not demonstrable, and which thus cannot be used to ground the explanation of actual appearances through an hypothesis. It is entirely permissible to **think** the soul as simple in order, in accordance with this **idea**, to make a complete and necessary unity of all powers of the mind, even though one cannot have insight into it *in concreto*, into the principle<sup>a</sup> of our judgment of its inner appearances. But to **assume** the soul as simple substance (a transcendent concept) would be a proposition that would not only be indemonstrable (as is the case with many physical hypotheses), but which would also be hazarded entirely arbitrarily and blindly, since the simple cannot come forth in any experience at all, and, if one here understands by substance the persistent object<sup>b</sup> of sensible intuition, there can be no insight at all into the possibility of a **simple appearance**. Merely intelligible beings or merely intelligible properties of the things of the sensible world cannot be assumed as opinions with any well-founded authority of reason, although (since one has no concept of either their possibility or their impossibility) they also cannot be dogmatically denied on the basis of any supposedly better insight.

A 773 / B 801

For the explanation of given appearances no other things and grounds of explanation can be adduced than those which are connected to the given appearances by already known laws of appearances. A **transcendental hypothesis**, in which a mere idea of reason would be used for the explanation of things in nature, would thus be no explanation at all, since that which one does not adequately understand on the basis of known empirical principles<sup>c</sup> would be explained by means of something about which one understands nothing at all. And the principle<sup>d</sup> of such an hypothesis would really serve only for the satisfaction of reason and not for the advancement of the use of the understanding in regard to objects. Order and purposiveness in nature must in turn be explained from natural grounds and in accordance with laws of nature, and here even the wildest hypotheses, as long as they are physical, are more tolerable than a hyperphysical hypothesis, i.e., the appeal to a divine author, which one presupposes to this end. For that would be a principle<sup>e</sup> of lazy reason (*ignava ratio*), at once bypassing all causes, of whose objective reality, at least as far as possibility is concerned, one could still learn through continued experience, in order to take refuge in a mere idea, which is very comforting to reason. As far as the absolute totality of the ground of explanation in the series of those causes is concerned,

<sup>a</sup> *Princip*<sup>b</sup> *Object*<sup>c</sup> *Principien*<sup>d</sup> *Princip*<sup>e</sup> *Princip*

### The discipline of pure reason in hypotheses

however, that can create no difficulty with regard to the objects of the world,<sup>a</sup> for since these are nothing but appearances, nothing that is completed in the synthesis of the series of conditions can be hoped for from them.

Transcendental hypotheses of the speculative use of reason and a freedom to make good the lack of physical grounds of explanation by using all sorts of hyperphysical ones can never be permitted at all, partly because reason is not advanced by them but rather cut off from all progress in their use, and partly because this license must ultimately destroy all fruits of the cultivation of its own proper soil, namely experience. For whenever the explanation of nature becomes difficult, we always have at hand a transcendental ground of explanation that spares us that inquiry, and our research is concluded not through insight but through the total incomprehensibility of a principle<sup>b</sup> which was thought up so far in advance that it must have contained the concept of that which is absolutely first.

A774/B802

The second point which is requisite to make an hypothesis worthy of being assumed is its adequacy for determining *a priori* the consequences these are given. If for this purpose auxiliary hypotheses need to be called in, they arouse the suspicion of being a mere invention, since each of them requires the same justification which the underlying thought needed, and hence can give no reliable testimony. If on the presupposition of an unlimitedly perfect cause there is no lack of grounds of explanation for all the purposiveness, order, and greatness<sup>c</sup> that is found in the world, then the deviations from these and the evils that reveal themselves, at least according to our concepts, require still further hypotheses in order to save the first from these objections. If the simple self-sufficiency of the human soul, which has been laid at the ground of its appearances, is impugned by difficulties because these are phenomena similar to the alterations of matter (growth and decay), then new hypotheses must be called in to help, which are not without plausibility but are still without any confirmation, except that which is given to them by the opinion assumed as the primary ground, which they were supposed to explain.

If the assertions of reason that have here been adduced as examples (incorporeal unity of the soul and existence of a highest being) are not to count as hypotheses, but as dogmata proven *a priori*, then they are not even an issue. In that case, however, one would indeed take care that the proof have the apodictic certainty of a demonstration. For to make the actuality of such ideas merely **probable** is an absurd proposal, just

<sup>a</sup> Weltobjekte

<sup>b</sup> Prinzip

<sup>c</sup> Größe

as if one thought to prove a proposition of geometry as merely probable. Reason in abstraction from all experience can cognize everything only *a priori* and necessarily, or not at all; hence its judgment is never an opinion, but either abstention from all judgment or apodictic certainty. Opinions and probable judgments about what pertains to things can occur only as grounds of explanation of that which is actually given or as consequences in accordance with empirical laws of that which actually grounds what is actually given; thus they can occur only in the series of objects of experience. To form opinions outside this field is the same as to play with thoughts, unless one merely has the opinion that an uncertain path of judgment can perhaps lead to truth.

A776/B804

However, although in merely speculative questions of pure reason no hypotheses are allowed to ground propositions, they are nevertheless entirely admissible for defending them, i.e., not in dogmatic but in polemical use. By defense, however, I understand not the augmentation of grounds of proof for its assertion, but rather the mere frustration of the opponent's illusory insights, which would demolish our own asserted propositions. But now all synthetic propositions from pure reason have the peculiarity that if he who asserts the reality of certain ideas never knows enough to make his proposition certain, on the other side his opponent can just as little know enough to assert the contrary. This equality in the lot of human reason favors neither of them in speculative cognitions, and there is thus the true battleground of feuds that can never be resolved. It will be shown in what follows, however, that in regard to its **practical use** reason still has the right to assume something which it would in no way be warranted in presupposing in the field of mere speculation without sufficient grounds of proof; for all such presuppositions injure the perfection of speculation, about which, however, the practical interest does not trouble itself at all. There it thus has a possession the legitimacy of which need not be proved, and the proof of which it could not in fact give. The opponent should therefore prove.

A777/B805

But since he no more knows something about the object that is doubted which would establish its non-being than does the former, who asserts its actuality, here an advantage on the side of he who asserts something as a practically necessary presupposition (*melior est conditio possidentis*)<sup>a</sup> is revealed. He is, namely, free to use, as it were in an emergency, the very same means for his good cause<sup>b</sup> as his opponent would use against it, i.e., to use the hypotheses that do not serve to strengthen the proof of it but serve only to show that the opponent understands far too little about the object of the dispute to be able to flatter himself with an advantage in speculative insight over us.

<sup>a</sup> The condition of the possessor is the better.

<sup>b</sup> *Sache*

### The discipline of pure reason in hypotheses

Hypotheses are therefore allowed in the field of pure reason only as weapons of war, not for grounding a right but only for defending it. However, we must always seek the enemy here in ourselves. For speculative reason in its transcendental use is dialectical **in itself**. The objections that are to be feared lie in ourselves. We must search them out like old but unexpired claims, in order to ground perpetual peace on their annihilation. External quiet is only illusory. The seed of the attacks, which lies in the nature of human reason, must be extirpated; but how can we extirpate it if we do not give it freedom, indeed even nourishment, to send out shoots, so that we can discover it and afterwards eradicate it with its root? Thus, think up for yourself the objections which have not yet occurred to any opponent, and even lend him the weapons or concede him the most favorable position that he could desire. There is nothing in this to fear, though much to hope, namely that you will come into a possession that can never be attacked in the future.

A 778/B 806

Now to your complete armament there also belong the hypotheses of pure reason, which, although they are merely leaden weapons (for they have not been steeled through any law of experience), are nevertheless just as capable as those which any opponent might use against you. If, therefore, you come up against the difficulty for the immaterial nature of the soul which is not subjected to any corporeal transformation (assumed in some other, non-speculative context), the difficulty, namely, that experience seems to prove that both the elevation as well as the derangement of our mental powers are merely different modifications of our organs, you can weaken the power of this proof by assuming that our body is nothing but the fundamental appearance to which the entire faculty of sensibility and therewith all thinking are related, as their condition, in our present state (in life). Separation from the body would be the end of this sensible use of your cognitive power and the beginning of the intellectual. The body would thus be not the cause of thinking but a merely restricting condition on it, thus it would be regarded as furthering the sensible and animal but for that reason all the more as hindering the pure and spiritual life, and the dependence of the former on the corporeal constitution would prove nothing about the dependence of life in its entirety on the state of our organs. But you could go even further, and indeed raise new doubts, which have either not been suggested before or else have not been driven far enough.

A 779/B 807

The contingency of conception, which in humans as well as in irrational creatures depends on opportunity, but besides this also on nourishment, on government, on its moods and caprices, even on vices, presents a great difficulty for the opinion of the eternal duration of a creature whose life has first begun under circumstances so trivial and so entirely dependent on our liberty. As far as the duration of the entire species (here on earth) is concerned, this difficulty amounts to little,

A 780/B 808

since the contingency in the individual<sup>a</sup> is nonetheless subjected to a rule in the whole; but with regard to each individual<sup>b</sup> it certainly seems questionable to expect such a powerful effect from such inconsequential causes. Against this, however, you could propose a transcendental hypothesis: that all life is really only intelligible, not subject to temporal alterations at all, and has neither begun at birth nor will be ended through death;<sup>c</sup> that this life is nothing but a mere appearance, i.e., a sensible representation of the purely spiritual life, and the entire world of the senses is a mere image, which hovers before our present kind of cognition and, like a dream, has no objective reality in itself; that if we could intuit the things and ourselves **as they are** we would see ourselves in a world of spiritual natures with which our only true community had not begun with birth nor would not cease with bodily death (as mere appearances), etc.

Now although we do not know or seriously assert the least thing about all of this which we have here pleaded against the attack, and it is all not even an idea of reason but merely a concept **thought up** for self-defense, nevertheless we proceed quite rationally here, showing the opponent who thinks he has exhausted all of the possibilities by falsely representing the lack of their empirical conditions as a proof of the complete impossibility of that which is believed by us, that he can span the entire field of possible things in themselves through mere laws of experience just as little as we can acquire anything for our reason in a well-grounded manner outside of experience. He who turns such hypothetical countermeasures against the pretensions of his rashly negative opponent must not be considered to hold them as his own genuine opinions. He abandons them as soon as he has finished off the dogmatic self-conceit of his opponent. For as modest and as moderate as it may be for someone merely to refuse and deny the assertions of another, as soon as he would make these objections valid as proof of the opposite his claim would be no less proud and conceited than if he had seized hold of the affirmative party and its assertion.

Thus one sees that in the speculative use of reason hypotheses have no validity as opinions in themselves, but only relative to opposed transcendent pretensions. For the extension of the principles<sup>d</sup> of possible experience to the possibility of things in general is just as transcendent as the assertion of the objective reality of such concepts, which can never find their objects anywhere but outside the boundary of all possible experience. What pure reason judges assertorically must be neces-

<sup>a</sup> im Einzeln

<sup>b</sup> jedem Individuum

<sup>c</sup> Following Erdmann, using a semicolon instead of Kant's period here.

<sup>d</sup> Principien

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sary (like everything cognized by reason), or it is nothing at all. Thus in fact it contains no opinions at all. The hypotheses in question are, however, only problematic judgments, which at least cannot be refuted, though of course they cannot be proved by anything, and they are therefore not private opinions, though against reigning scruples they cannot be dispensed with (even for inner tranquility). But one must preserve them in this quality, and indeed carefully make sure that they are not believed in themselves and as having an absolute validity, and that they do not drown reason in fictions and deceptions.

A 782/B 810

### First Chapter Fourth Section

#### The discipline of pure reason in regard to its proofs.

The proofs of transcendental and synthetic propositions are unique among all proofs of synthetic *a priori* cognition in that in their case reason may not apply itself directly to the object by means of its concepts, but must first establish the objective validity of the concepts and the possibility of their synthesis *a priori*. This is not merely a necessary rule of caution, but concerns the essence and the possibility of the proofs themselves. It is impossible for me to go beyond the concept of an object *a priori* without a special clue which is to be found outside of this concept. In mathematics it is *a priori* intuition that guides my synthesis, and there all inferences can be immediately drawn from<sup>a</sup> pure intuition. In transcendental cognition, as long as it has to do merely with concepts of the understanding, this guideline is possible experience. The proof does not show, that is, that the given concept (e.g., of that which happens) leads directly to another concept (that of a cause), for such a transition would be a leap for which nothing could be held responsible; rather it shows that experience itself, hence the object<sup>b</sup> of experience, would be impossible without such a connection. The proof, therefore, had to indicate at the same time the possibility of achieving synthetically and *a priori* a certain cognition of things which is not contained in the concept of them. Without attention to this the proofs, like water breaking its banks, run wildly across the country, wherever the tendency of hidden association may happen to lead them. The illusion of conviction, which rests on subjective causes of association and is taken for the insight of a natural affinity, cannot balance the misgiving to which steps risked in this way properly give rise. Hence all attempts to prove the principle of sufficient reason have also, according to the

A 783/B 811

<sup>a</sup> Following the second edition, which reads "von"; the first has "an."

<sup>b</sup> Object

A 784/B 812

general consensus of experts, been in vain, and, since one still could not abandon this principle, until the transcendental critique came onto the scene one preferred obstinately to appeal to healthy human understanding (a refuge, which always proves that the cause of reason is in despair) rather than to attempt new dogmatic proofs.

But if the proposition of which a proof is to be given is an assertion of pure reason, and if I would even go beyond my concepts of experience by means of mere ideas, then all the more must this proof contain the justification of such a step of synthesis (if it would otherwise be possible) as a necessary condition of its probative force. Hence as plausible as the supposed proof of the simple nature of our thinking substance from the unity of apperception may be, yet it is unavoidably faced with the difficulty that, since absolute simplicity is not a concept that can be immediately related to a perception, but rather as an idea must be merely inferred, there can be no insight at all into how the mere consciousness that is contained or at least can be contained **in all thinking** should, even though it is to this extent a simple representation, lead to the consciousness and knowledge<sup>a</sup> of a thing **in which** alone thinking can be contained.<sup>22</sup> For if I represent to myself the force of my body in motion, it is to that extent absolute unity for me, and my representation of it is simple; hence I can also express it through the motion of a point, since its volume is not relevant, and without diminution of the force it can be represented as being as small as one wants and can even be conceived of as being located in one point. But I would not infer from this that if nothing is given to me except the moving force of a body then the body can be conceived of as a simple substance just because its representation abstracts from all magnitude of the content of space and is therefore simple. Now I discover a paralogism in the fact that the simple in the abstract is entirely different from the simple in the object<sup>b</sup> and that the I, which taken in the first sense<sup>c</sup> comprises no manifold **within itself**, if taken in the second sense, in which it signifies the soul itself, can be a very complex concept, namely containing **under itself** and designating quite a lot. Only in order to have any presentiment of this paralogism (for without such a provisional conjecture one would hardly have any suspicion of the proof), it is always necessary to have at hand an enduring criterion of the possibility of such synthetic propositions, which prove more than experience can yield, which criterion consists in the fact that the proof leads to the required predicate not directly but only by means of a principle<sup>d</sup> of the possibility of expand-

<sup>a</sup> Kenntnis<sup>b</sup> Object<sup>c</sup> im ersten Verstande<sup>d</sup> Princip

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ing our given concepts *a priori* to ideas and realizing these. If this caution is always used, and if before one even attempts the proof one wisely considers how and with what basis for hope one could expect such an expansion through pure reason, and whence, in cases of this sort, one would derive these insights, which are not developed from concepts and which also cannot be anticipated in relation to possible experience, then one can be spared many difficult and nevertheless fruitless efforts, since one would not attribute to reason anything which obviously exceeds its capacity,<sup>a</sup> but would rather subject reason, which does not gladly suffer constraint in the paroxysms of its lust for speculative expansion, to the discipline of abstinence.

The first rule, therefore, is this: to attempt no transcendental proofs without having first considered whence one can justifiably derive the principles on which one intends to build and with what right one can expect success in inferences from them. If they are principles of the understanding (e.g., of causality), then it is in vain to try to arrive by their means at ideas of pure reason; for those principles are valid only for objects of possible experience. If they are to be principles from pure reason, then again all effort is in vain. For reason has principles, to be sure, but as objective principles they are all dialectical, and can only be valid as regulative principles<sup>b</sup> of the systematically coherent use of experience. But if such ostensible proofs are already given, then oppose the *non liquet*<sup>c</sup> of your mature power of judgment against their deceptive conviction, and even if you cannot yet penetrate their deception you still have a perfect right to demand the deduction of the principles that are used in them, which, if they are supposed to have arisen from pure reason, will never be provided for you. And thus it is not even necessary for you to concern yourself with the development and refutation of each groundless illusion, but you can dispose of the entire heap of these inexhaustible tricks of dialectic at once in the court of a critical reason, which demands laws.

The second peculiarity of transcendental proofs is this: that for each transcendental proposition only a **single** proof can be found. If I am to draw an inference not from concepts but rather from the intuition which corresponds to a concept, whether it be a pure intuition, as in mathematics, or an empirical intuition, as in natural science, the intuition that grounds the inference offers me a manifold of material for synthetic propositions that I can connect in more than one way, thus allowing me to reach the same proposition by different paths since I may start out from more than one point.

A 786/B 814

A 787/B 815

<sup>a</sup> Vermögen

<sup>b</sup> Prinzipien

<sup>c</sup> The verdict "not proved."

A 788/B 816

Every transcendental proposition, however, proceeds solely from one concept, and states the synthetic condition of the possibility of the object in accordance with this concept. The ground of proof can therefore only be unique, since outside this concept there is nothing further by means of which the object could be determined, and the proof can therefore contain nothing more than the determination of an object in general in accordance with this concept, which is also unique. In the transcendental analytic we drew, e.g., the principle "Everything that happens has a cause" from the unique condition of the objective possibility of a concept of that which happens in general, namely that the determination of an occurrence in time, and consequently this (occurrence) as belonging to experience, would be impossible if it did not stand under such a dynamical rule. Now this is also the only possible ground of proof; for only through the fact that an object is determined for the concept by means of the law of causality does the represented occurrence have objective validity, i.e., truth. To be sure, still other proofs of this principle, e.g., from contingency, have been attempted;<sup>23</sup> but if this is considered clearly, one cannot discover any characteristic of contingency except that of **happening**, i.e., existence which is preceded by a not-being of the object, and one therefore always comes back to the same ground of proof. If the proposition "Everything that thinks is simple" is to be proved, one does not dwell on the manifoldness of thinking, but sticks solely with the concept of the I, which is simple and to which all thinking is related. It is just the same with the transcendental proof of the existence of God, which depends solely on the reciprocity of the concepts of the most real being and the necessary being, and cannot be sought anywhere else.

A 789/B 817

Through this cautionary remark the critique of the assertions of reason is very much reduced. Where reason would conduct its business through mere concepts, only a single proof is possible if any proof is possible at all. Thus if one sees the dogmatist step forth with ten proofs, one can be sure that he has none at all. For if he had one that proved apodictically (as must be the case in matters of pure reason), for what would he need the rest? His intention is only that of every parliamentary advocate: one argument for this one, another one for that, in order to take advantage of the weakness of his judges who, without getting into the business deeply and in order to get rid of it quickly, just grasp at the first argument that occurs to them and decide accordingly.

The third special rule of pure reason, if it is subjected to a discipline in regard to transcendental proofs, is that its proofs must never be **apagogic** but always **ostensive**. The direct or ostensive proof is, in all kinds of cognition, that which is combined with the conviction of truth and simultaneously with insight into its sources; the apagogic proof, on the contrary, can produce certainty, to be sure, but never comprehensi-

bility of the truth in regard to its connection with the grounds of its possibility. Hence the latter are more of an emergency aid than a procedure which satisfies all the aims of reason. Yet they have an advantage in self-evidence over the direct proofs in this: that a contradiction always carries with it more clarity of representation than the best connection, and thereby more closely approaches the intuitiveness of a demonstration.

The real cause for the use of apagogic proofs in various sciences is probably this. If the grounds from which a certain cognition should be derived are too manifold or lie too deeply hidden, then one tries whether they may not be reached through their consequences. Now *modus ponens*, inferring the truth of a cognition from the truth of its consequences, would be allowed only if all of the possible consequences are true; for in this case only a single ground of this is possible, which is therefore also the true one.<sup>24</sup> But this procedure is unusable, because to have insight into all possible consequences of any proposition that is assumed exceeds our powers; yet one uses this kind of inference, though to be sure with a certain degree of care, if it is merely a matter of proving something as an hypothesis, since there an inference by analogy is allowed: that, namely, if as many consequences as one has tested agree with an assumed ground then all other possible ones will also agree with it. But for this reason an hypothesis can never be transformed into a demonstrated truth by this path. The *modus tollens* of rational inferences,<sup>25</sup> which infers from the consequences to the grounds, proves not only entirely strictly but also in all cases easily. For if even only a single false consequence can be derived from a proposition, then this proposition is false.<sup>25</sup> Now instead of having to run through the entire series of the grounds in an ostensive proof that can lead to the truth of a cognition, by means of complete insight into its possibility, one need only find a single false one among the consequences flowing from its contrary, and then the contrary is also false, thus the cognition that one had to prove is true.

Apagogic proof, however, can be allowed only in those sciences where it is impossible to substitute that which is subjective in our representations for that which is objective, namely the cognition of what is in the object. Where the latter is the dominant concern, however, then it must frequently transpire that the opposite of a certain proposition either simply contradicts the subjective conditions of thought but not the object, or else that both propositions contradict each other only under a subjective condition that is falsely held to be objective, and that since the condition is false, both of them can be false, without it being possible to infer the truth of one from the falsehood of the other.

<sup>a</sup> *Vernunftschlüsse*, which could also be translated “syllogisms.”

A792/B820

In mathematics this subreption is impossible; hence apagogic proof has its proper place there. In natural science, since everything there is grounded on empirical intuitions, such false pretenses can frequently be guarded against through the comparison of many observations; but this kind of proof itself is for the most part unimportant in this area. The transcendental attempts of pure reason, however, are all conducted within the real medium of dialectical illusion, i.e., the subjective which offers itself to or even forces itself upon reason as objective in its premises. Now here it simply cannot be allowed that assertions of synthetic propositions be justified by the refutation of their opposites. For either this refutation is nothing other than the mere representation of the conflict of the opposed opinion with the subjective conditions of comprehensibility through our reason, which does nothing by way of rejecting the thing itself (just as, e.g., unconditional necessity in the existence of a being cannot be conceived by us at all, and hence every speculative proof of a necessary highest being is therefore rightfully opposed **subjectively**, but the possibility of such an original being **in itself** is not rightfully opposed), or else both, the affirmative as well as the negative part, taken in by transcendental illusion, have as their ground

A793/B821

an impossible concept of the object, and then the rule holds that *non entis nulla sunt predicata*,<sup>a</sup> i.e., both what one asserts affirmatively as well as what one asserts negatively of the object are incorrect, and one cannot arrive at cognition of the truth apagogically through the refutation of its opposite. So, for example, if it is presupposed that the sensible world is given in its totality **in itself**, then it is false that it must be **either** infinite in space or<sup>b</sup> finite and bounded, just because both of these are false. For appearances (as mere representations), which would yet be given **in themselves** (as objects)<sup>c</sup> are something impossible, and the infinity of this imagined whole would, to be sure, be unconditioned, but would nevertheless (since everything in appearances is conditioned) contradict the unconditioned determination of magnitude that is presupposed in the concept.

Apagogic proof is also the real deception with which the admirers of the thoroughness of our dogmatic sophists have always been held off; it is the champion, as it were, who would prove the honor and the indisputable right of his chosen party by his pledge to take on anyone who would doubt it, although through such boasting nothing is settled about the real issue but only the relative strength of the opponents, and indeed only that of the one who is on the attack. The observers, seeing that each is in turn first victor then vanquished, often take the occasion

<sup>a</sup> Nothing is to be predicated of any non-being.

<sup>b</sup> The "or" is emphasized in the first edition but not in the second.

<sup>c</sup> *Objecte*

A794/B822

to have skeptical doubts about the object<sup>a</sup> of the dispute itself. However, they do not have cause for this, and it is sufficient to declare to them: *non defensoribus istis tempus eget*.<sup>b</sup> Each must conduct his affair by means of a legitimate proof through the transcendental deduction of its grounds of proof, i.e., directly, so that one can see what his claim of reason has to say for itself. For if his opponent stands on subjective grounds, it is of course easy to refute him, but without any advantage to the dogmatist, who commonly depends in just the same way on subjective causes of judgment and who can in the same way be driven into a corner by his opponent. But if both sides would only proceed directly, then either they themselves must notice the difficulty, indeed the impossibility of discovering a title for their assertions, and will in the end be able to appeal only to their antiquity, or else the critique will easily reveal the dogmatic illusion, and compel pure reason to surrender its exaggerated pretensions in its speculative use, and to draw back within the boundaries of its proper territory, namely practical principles.

#### <sup>a</sup> Object

<sup>b</sup> "The time does not need these defenses." The complete quotation is "*Non tali auxilio, nec defensoribus istis tempus eget*" (Virgil, *Aeneid* II.5, 21); in the translation by Robert Fitzgerald, "The time is past for help like this, for this kind of defending" (Virgil, *The Aeneid*, tr. Robert Fitzgerald [New York: Random House, 1981], p. 51). The line is spoken by Hecuba to Priam as the aged king of Troy arms himself against the Greeks in the final death throes of his city.