

# INTRODUCTION

B 1

## I. THE DISTINCTION BETWEEN PURE AND EMPIRICAL KNOWLEDGE

THERE can be no doubt that all our knowledge begins with experience. For how should our faculty of knowledge be awakened into action did not objects affecting our senses partly of themselves produce representations, partly arouse the activity of our understanding to compare these representations, and, by combining or separating them, work up the raw material of the sensible impressions into that knowledge of objects which is entitled experience? In the order of time, therefore, we have no knowledge antecedent to experience, and with experience all our knowledge begins.

But though all our knowledge begins with experience, it does not follow that it all arises out of experience. For it

---

\* [In B the Introduction is divided into five sections, in place of the two sections of the original Introduction. The new sections I. and II. (with their headings) are substituted in B for the original two opening paragraphs (with their heading), which are as follows:]

## I. THE IDEA OF TRANSCENDENTAL PHILOSOPHY

A 1

Experience is, beyond all doubt, the first product to which our understanding gives rise, in working up the raw material of sensible impressions.<sup>1</sup> Experience is therefore our first instruction, and in its progress is so inexhaustible in new information, that in the interconnected lives of all future generations there will never be any lack of new knowledge that can be thus ingathered. Nevertheless, it is by no means

<sup>1</sup> [*sinnliche Empfindungen.*]

may well be that even our empirical knowledge is made up of what we receive through impressions and of what our own faculty of knowledge (sensible impressions serving merely as the occasion) supplies from itself. If our faculty of knowledge makes any such addition, it may be that we are not in a position to distinguish it from the raw material, until with long practice of attention we have become skilled in separating it.

This, then, is a question which at least calls for closer examination, and does not allow of any off-hand answer:—whether there is any knowledge that is thus independent of experience and even of all impressions of the senses. Such knowledge is entitled *a priori*, and distinguished from the

---

the sole field to which our understanding is confined. Experience tells us, indeed, what is, but not that it must necessarily be so, and not otherwise. It therefore gives us no true universality; and reason, which is so insistent upon this kind of knowledge, is therefore more stimulated by it than satisfied. Such universal modes of knowledge,<sup>1</sup> which at the same time possess the character of inner necessity, must in themselves, independently of experience, be clear and certain. They are therefore entitled knowledge *a priori*; whereas, on the other hand, that which is borrowed solely from experience is, as we say, known only *a posteriori*, or empirically.

Now we find, what is especially noteworthy, that even into our experiences there enter modes of knowledge which must have their origin *a priori*, and which perhaps serve only to give coherence to our sense-representations.<sup>2</sup> For if we eliminate from our experiences everything which belongs to the senses, there still remain certain original concepts and certain judgments derived from them, which must have arisen completely *a priori*, independently of experience, inasmuch as they enable us to say, or at least lead us to believe that we can say, in regard to the objects which appear to the senses, more than mere experience would teach—giving to assertions true universality and strict necessity, such as mere empirical knowledge cannot supply.

<sup>1</sup> [As the term 'knowledge' cannot be used in the plural, I have usually translated *Erkenntnisse* 'modes of knowledge'.]

<sup>2</sup> [*Vorstellungen der Sinne*.]

*empirical*, which has its sources *a posteriori*, that is, in experience.

The expression '*a priori*' does not, however, indicate with sufficient precision the full meaning of our question. For it has been customary to say, even of much knowledge that is derived from empirical sources, that we have it or are capable of having it *a priori*, meaning thereby that we do not derive it immediately from experience, but from a universal rule—a rule which is itself, however, borrowed by us from experience. Thus we would say of a man who undermined the foundations of his house, that he might have known *a priori* that it would fall, that is, that he need not have waited for the experience of its actual falling. But still he could not know this completely *a priori*. For he had first to learn through experience that bodies are heavy, and therefore fall when their supports are withdrawn.

In what follows, therefore, we shall understand by *a priori* knowledge, not knowledge independent of this or that experience, but knowledge absolutely independent of all experience. B 3 Opposed to it is empirical knowledge, which is knowledge possible only *a posteriori*, that is, through experience. *A priori* modes of knowledge are entitled pure when there is no admixture of anything empirical. Thus, for instance, the proposition, 'every alteration has its cause', while an *a priori* proposition, is not a pure proposition, because alteration is a concept which can be derived only from experience.<sup>1</sup>

## II. WE ARE IN POSSESSION OF CERTAIN MODES OF *A PRIORI* KNOWLEDGE, AND EVEN THE COMMON UNDERSTANDING IS NEVER WITHOUT THEM

What we here require is a criterion<sup>2</sup> by which to distinguish with certainty between pure and empirical knowledge. Experience teaches us that a thing is so and so, but not that it cannot be otherwise. First, then, if we have a proposition which in being thought is thought as *necessary*, it is an *a priori* judgment; and if, besides, it is not derived from any proposition except one which also has the validity of a necessary judgment, it is an absolutely *a priori* judgment. Secondly,

<sup>1</sup> [Cf. below, pp. 44, 76, 216-7.]

<sup>2</sup> [*Merkmal*.]

experience never confers on its judgments true or strict, but only assumed and comparative *universality*, through induction. We can properly only say, therefore, that, so far as  
 B 4 we have hitherto observed, there is no exception to this or that rule. If, then, a judgment is thought with strict universality, that is, in such manner that no exception is allowed as possible, it is not derived from experience, but is valid absolutely *a priori*. Empirical universality is only an arbitrary extension of a validity holding in most cases to one which holds in all, for instance, in the proposition, 'all bodies are heavy'. When, on the other hand, strict universality is essential to a judgment, this indicates a special source of knowledge, namely, a faculty of *a priori* knowledge. Necessity and strict universality are thus sure criteria of *a priori* knowledge, and are inseparable from one another. But since in the employment of these criteria the contingency of judgments is sometimes more easily shown than their empirical limitation,<sup>1</sup> or, as sometimes also happens, their unlimited universality can be more convincingly proved than their necessity, it is advisable to use the two criteria separately, each by itself being infallible.

Now it is easy to show that there actually are in human knowledge judgments which are necessary and in the strictest sense universal, and which are therefore pure *a priori* judgments. If an example from the sciences be desired, we have only to look to any of the propositions of mathematics; if we seek an example from the understanding in its quite ordinary  
 B 5 employment, the proposition, 'every alteration must have a cause', will serve our purpose. In the latter case, indeed, the very concept of a cause so manifestly contains the concept of a necessity of connection with an effect and of the strict universality of the rule, that the concept would be altogether lost if we attempted to derive it, as Hume has done, from a repeated association of that which happens with that which precedes, and from a custom of connecting representations, a custom originating in this repeated association, and constituting therefore a merely subjective necessity. Even without appeal-

<sup>1</sup> [Reading, with Vaihinger, *die Zufälligkeit in den Urteilen als die empirische Beschränktheit derselben* for *die empirische Beschränktheit derselben als die Zufälligkeit in den Urteilen*.]

ing to such examples, it is possible to show that pure *a priori* principles are indispensable for the possibility of experience, and so to prove their existence *a priori*. For whence could experience derive its certainty, if all the rules, according to which it proceeds, were always themselves empirical, and therefore contingent? Such rules could hardly be regarded as first principles. At present, however, we may be content to have established the fact that our faculty of knowledge does have a pure employment, and to have shown what are the criteria of such an employment.

Such *a priori* origin is manifest in certain concepts, no less than in judgments. If we remove from our empirical concept of a body, one by one, every feature in it which is [merely] empirical, the colour, the hardness or softness, the weight, even<sup>1</sup> the impenetrability, there still remains the space which the body (now entirely vanished) occupied, and this cannot be removed. Again, if we remove from our empirical concept of any object, corporeal or incorporeal, all properties which experience has taught us, we yet cannot take away that property through which the object is thought as substance or as inhering in a substance (although this concept of substance is more determinate than that of an object in general). Owing, therefore, to the necessity with which this concept of substance forces itself upon us, we have no option save to admit that it has its seat in our faculty of *a priori* knowledge.

B 6

### III. PHILOSOPHY STANDS IN NEED OF A SCIENCE WHICH SHALL DETERMINE THE POSSIBILITY, THE PRINCIPLES, AND THE EXTENT OF ALL *A PRIORI* KNOWLEDGE

But what is still more extraordinary than all the preceding<sup>2</sup> is this, that certain modes of knowledge leave the field of all possible experiences and have the appearance of extending the scope of our judgments beyond all limits of experience, and this by means of concepts to which no corresponding object can ever be given in experience.

A 3

It is precisely by means of the latter modes of knowledge, in a realm beyond the world of the senses, where experience

<sup>1</sup> [*selbst* omitted in the 4th edition.]

<sup>2</sup> [*als alle vorige* added in B.]

can yield neither guidance nor correction, that our reason carries on those enquiries which owing to their importance  
 B 7 we consider to be far more excellent, and in their purpose far more lofty, than all that the understanding can learn in the field of appearances. Indeed we prefer to run every risk of error rather than desist from such urgent enquiries, on the ground of their dubious character, or from disdain and indifference. <sup>1</sup>These unavoidable problems set by pure reason itself are *God, freedom, and immortality*. The science which, with all its preparations, is in its final intention directed solely to their solution is metaphysics; and its procedure is at first dogmatic, that is, it confidently sets itself to this task without any previous examination of the capacity or incapacity of reason for so great an undertaking.

Now it does indeed seem natural that, as soon as we have left the ground of experience, we should, through careful enquiries, assure ourselves as to the foundations of any building that we propose to erect, not making use of any knowledge that we possess without first determining whence it has come, and not trusting to principles without knowing their origin. It is natural, that is to say, that the question should first be considered, how the understanding can arrive at all this knowledge *a priori*, and what extent, validity, and worth it may  
 A 4 have. Nothing, indeed, could be more natural, if by the term  
 B 8 'natural' <sup>2</sup> we signify what fittingly and reasonably ought to happen. But if we mean by 'natural' what ordinarily happens, then on the contrary nothing is more natural and more intelligible than the fact that this enquiry has been so long neglected. For one part of this knowledge, the mathematical, has long been of established reliability, and so gives rise to a favourable presumption as regards the other part, which may yet be of quite different nature. Besides, once we are outside the circle of experience, we can be sure of not being *contradicted* by experience. The charm of extending our knowledge is so great that nothing short of encountering a direct contradiction can suffice to arrest us in our course; and this can be avoided, if we are careful in our fabrications—which none the less will still remain fabrications. Mathematics gives us a shin-

<sup>1</sup> ["These unavoidable . . ." to end of paragraph added in B.]

<sup>2</sup> [In A *unter diesem Wort*: in B *unter dem Worte natürlich*.]

ing example of how far, independently of experience, we can progress in *a priori* knowledge. It does, indeed, occupy itself with objects and with knowledge solely in so far as they allow of being exhibited in intuition. But this circumstance is easily overlooked, since the intuition, in being thought, can itself be given *a priori*, and is therefore hardly to be distinguished from a bare and pure concept. Misled<sup>1</sup> by such a proof of the power of reason, the demand for the extension of knowledge recognises no limits. The light dove, cleaving the air in her free flight, and feeling its resistance, might imagine that its flight would be still easier in empty space. It was thus that Plato B 9 left the world of the senses, as setting too narrow limits to<sup>2</sup> the understanding, and ventured out beyond it on the wings of the ideas, in the empty space of the pure understanding. He did not observe that with all his efforts he made no advance—meeting no resistance that might, as it were, serve as a support upon which he could take a stand, to which he could apply his powers, and so set his understanding in motion. It is, indeed, the common fate of human reason to complete its speculative structures as speedily as may be, and only afterwards to enquire whether the foundations are reliable. All sorts of excuses will then be appealed to, in order to reassure us of their solidity, or rather indeed<sup>3</sup> to enable us to dispense altogether with so late and so dangerous an enquiry. But what keeps us, during the actual building, free from all apprehension and suspicion, and flatters us with a seeming thoroughness, is this other circumstance, namely, that a great, perhaps the greatest, part of the business of our reason consists in analysis<sup>4</sup> of the concepts which we already have of objects. This analysis supplies us with a considerable body of knowledge, which, while nothing but explanation or elucidation of what has already been thought in our concepts, though in a confused manner, is yet prized as being, at least as regards its form, new insight. But so far as the matter or content is concerned, there has been no extension of our previously possessed concepts, but only an analysis of them. Since this procedure yields real knowledge *a priori*, which B 10

<sup>1</sup> [In A: Encouraged.]

<sup>2</sup> [In A: placing such manifold hindrances in the way of.]

<sup>3</sup> [*lieber gar* added in B.]

<sup>4</sup> [Reading, with the 5th edition. *Zergliederung* for *Zergliederungen*.]

progresses in an assured and useful fashion, reason is so far misled as surreptitiously to introduce, without itself being aware of so doing, assertions of an entirely different order, in which it attaches to given concepts others completely foreign to them, and moreover attaches them *a priori*.<sup>1</sup> And yet it is not known how reason can be in position to do this. Such a question<sup>2</sup> is never so much as thought of. I shall therefore at once proceed to deal with the difference between these two kinds of knowledge.

#### IV. THE DISTINCTION BETWEEN ANALYTIC AND SYNTHETIC JUDGMENTS

In all judgments in which the relation of a subject to the predicate is thought (I take into consideration affirmative judgments only, the subsequent<sup>4</sup> application to negative judgments being easily made), this relation is possible in two different ways. Either the predicate B belongs to the subject A, as something which is (covertly) contained in this concept A; or B lies outside the concept A, although it does indeed stand in connection with it. In the one case I entitle the judgment analytic, in the other synthetic. Analytic judgments (affirmative) are therefore those in which the connection of the predicate with the subject is thought through identity; those in which this connection is thought without identity should be entitled synthetic. The former, as adding nothing through the predicate to the concept of the subject, but merely breaking it up into those constituent concepts that have all along been thought in it, although confusedly, can also be entitled explicative. The latter, on the other hand, add to the concept of the subject a predicate which has not been in any wise thought in it, and which no analysis could possibly extract from it; and they may therefore be entitled ampliative. If I say, for instance, 'All bodies are extended', this is an analytic judgment. For I do not require to go beyond the concept which I connect with 'body'<sup>5</sup> in order to find extension as bound up with it. To

<sup>1</sup> [In A: attaches *a priori* to given concepts others completely foreign to them.]

<sup>2</sup> [In A: This question.]    <sup>3</sup> ["IV" added in B.]    <sup>4</sup> [*nachher* added in B.]

<sup>5</sup> [In A: outside the concept which I connect with the word body.]



meet with this predicate, I have merely to analyse the concept, that is, to become conscious to myself<sup>1</sup> of the manifold which I always think in that concept. The judgment is therefore analytic. But when I say, 'All bodies are heavy', the predicate is something quite different from anything that I think in the mere concept of body in general; and the addition of such a predicate therefore yields a synthetic judgment.

\* Judgments of experience, as such, are one and all synthetic. For it would be absurd to found an analytic judgment on experience. Since, in framing the judgment, I must not go outside my concept, there is no need to appeal to the testimony of experience in its support. That a body is extended is a proposition that holds *a priori* and is not empirical. For, before appealing to experience, I have already in the concept of body all the conditions required for my judgment. I have only to extract from it, in accordance with the principle of contradiction, the required predicate, and in so doing can at the same time become conscious of the necessity of the judgment—and that is what experience could never have taught me. On the other hand, though I do not include in the concept of a body in general the predicate 'weight', none the less this concept indicates an object of experience through one of its parts, and I can add to that part other parts of this same experience, as in this way belonging together with the concept. From the start

---

\* ["Judgments of experience" to end of paragraph substituted in B in place of the following:]

Thus it is evident: 1. that through analytic judgments our knowledge is not in any way extended, and that the concept which I already have is merely set forth and made intelligible to me; 2. that in synthetic judgments I must have besides the concept of the subject something else (X), upon which the understanding may rely, if it is to know that a predicate, not contained in this concept, nevertheless belongs to it.

In the case of empirical judgments, judgments of experience, there is no difficulty whatsoever in meeting this demand. This X is the complete experience of the object which I think through the concept A—a concept which forms only one part of this experience. For though I do not include in the concept

<sup>1</sup> [*mir* added in B.]

I can apprehend the concept of body analytically through the characters of extension, impenetrability, figure, etc., all of which are thought in the concept. Now, however, looking back on the experience from which I have derived this concept of body, and finding weight to be invariably connected with the above characters, I attach it as a predicate to the concept; and in doing so I attach it synthetically, and am therefore extending my knowledge. The possibility of the synthesis of the predicate 'weight' with the concept of 'body' thus rests upon experience. While the one concept is not contained in the other, they yet belong to one another, though only contingently, as parts of a whole, namely, of an experience which is itself a synthetic combination of intuitions.

- A 9 But in *a priori* synthetic judgments this help is entirely  
 B 13 lacking. [I do not here have the advantage of looking around in the field of experience.] Upon what, then, am I to rely, when I seek to go beyond<sup>1</sup> the concept A, and to know that another concept B is connected with it? Through what is the synthesis made possible? Let us take the proposition, 'Everything which happens has its cause'. In the concept of 'something which happens', I do indeed think an existence which is preceded by a time, etc., and from this concept analytic judgments may be obtained. But the concept of a 'cause' lies entirely outside the other concept, and<sup>2</sup> signifies something different

---

of a body in general the predicate 'weight', the concept none the less indicates the complete experience through one of its parts; and to this part, as belonging to it, I can therefore add other parts of the same experience. By prior analysis I can apprehend the concept of body through the characters of extension, impenetrability, figure, etc., all of which are thought in this concept. To extend my knowledge, I then look back to the experience from which I have derived this concept of body, and find that weight is always connected with the above characters. Experience is thus the X which lies outside the concept A, and on which rests the possibility of the synthesis of the predicate 'weight' (B) with the concept (A).

<sup>1</sup> [In A: outside.]

<sup>2</sup> [*liegt ganz ausser jenem Begriffe, und* added in B.]

from 'that which happens', and is not therefore<sup>1</sup> in any way contained in this latter representation. How come I then to predicate of that which happens something quite different, and to apprehend that the concept of cause, though not contained in it, yet belongs, and indeed necessarily belongs,<sup>2</sup> to it? What is here the unknown<sup>3</sup> = X which gives support to the understanding when it believes that it can discover outside the concept A a predicate B foreign to this concept, which it yet at the same time considers to be connected with it?<sup>4</sup> It cannot be experience, because the suggested principle has connected the second representation<sup>5</sup> with the first, not only with greater universality,<sup>6</sup> but also with the character of necessity, and therefore completely *a priori* and on the basis of mere concepts. Upon such synthetic, that is, ampliative principles, all our *a priori* speculative knowledge must ultimately rest; analytic judgments<sup>7</sup> are very important, and indeed necessary, but only for obtaining that clearness in the concepts which is requisite for such a sure and wide synthesis as will lead to a genuinely new addition<sup>8</sup> to all previous knowledge.\*

A 10

B 14

---

\* [In A there follows the passage, omitted in B:]

A certain mystery lies here concealed;<sup>a</sup> and only upon its solution can the advance into the limitless field of the knowledge yielded by pure understanding be made sure and trustworthy. What we must do is to discover, in all its proper universality, the ground of the possibility of *a priori* synthetic judgments, to obtain insight into the conditions which make

<sup>a</sup> If it had occurred to any of the ancients even to raise this question, this by itself would, up to our own time, have been a powerful influence against all systems of pure reason, and would have saved us so many of those vain attempts, which have been blindly undertaken without knowledge of what it is that requires to be done.

<sup>1</sup> [*ist also* substituted in B for *und ist*.]

<sup>2</sup> [*und sogar notwendig* added in B.]

<sup>3</sup> [*das Unbekannte = X* substituted in B for *das X*.]

<sup>4</sup> [In A: and yet at the same time connected with it.]

<sup>5</sup> [Reading, with Grillo, *Vorstellung* for *Vorstellungen*.]

<sup>6</sup> [In A: with greater universality than experience can yield, but . . .]

<sup>7</sup> [Adding, with Erdmann, *Urteile*.]

<sup>8</sup> [In B *Erwerb* substituted for *Anbau*.]

<sup>1</sup>V. IN ALL THEORETICAL SCIENCES OF REASON SYNTHETIC  
A PRIORI JUDGMENTS ARE CONTAINED AS PRINCIPLES

1. *All mathematical judgments, without exception, are synthetic.* This fact, though incontestably certain and in its consequences very important, has hitherto escaped the notice of those who are engaged in the analysis of human reason, and is, indeed, directly opposed to all their conjectures. For as it was found that all mathematical inferences proceed in accordance with the principle of contradiction (which the nature of all apodeictic certainty requires), it was supposed that the fundamental propositions of the science can themselves be known to be true<sup>2</sup> through that principle. This is an erroneous view. For though a synthetic proposition can indeed be discerned in accordance with the principle of contradiction, this can only be if another synthetic proposition is presupposed, and if it can then be apprehended as following from this other proposition; it can never be so discerned in and by itself.

First of all, it has to be noted that mathematical propositions, strictly so called, are always judgments *a priori*, not empirical; because they carry with them necessity, which  
B 15 cannot be derived from experience. If this be demurred to, I am willing to limit my statement to *pure* mathematics, the very concept of which implies that it does not contain empirical, but only pure *a priori* knowledge.

We might, indeed, at first suppose that the proposition  $7 + 5 = 12$  is a merely analytic proposition, and follows by the principle of contradiction from the concept of a sum of 7 and 5. But if we look more closely we find that the concept of the sum of 7 and 5 contains nothing save the union of the two numbers into one, and in this no thought is being taken

---

each kind of such judgments possible, and to mark out all this knowledge, which forms a genus by itself, not in any cursory outline, but in a system, with completeness and in a manner sufficient for any use, according to its original sources, divisions, extent, and limits. So much, meantime, as regards what is peculiar in synthetic judgments.

<sup>1</sup> [Sections V. and VI. added in B.]

<sup>2</sup> [In 4th edition *erkannt* changed to *anerkannt*.]

as to what that single number may be which combines both. The concept of 12 is by no means already thought in merely thinking this union of 7 and 5; and I may analyse my concept of such a possible sum as long as I please, still I shall never find the 12 in it. We have to go outside these concepts, and call in the aid of the intuition which corresponds to one of them, our five fingers, for instance, or, as Segner<sup>1</sup> does in his *Arithmetic*, five points, adding to the concept of 7, unit by unit, the five given in intuition. For starting with the number 7, and for the concept of 5 calling in the aid of the fingers of my hand as intuition, I now add one by one to the number 7 the units which I previously took together to form the number 5, and with the aid of that figure<sup>2</sup> [the hand] see the number 12 come into being. That 5 should be added to 7,<sup>3</sup> I have indeed already thought in the concept of a sum =  $7 + 5$ , but not that this sum is equivalent to the number 12. Arithmetical propositions are therefore always synthetic. This is still more evident if we take larger numbers. For it is then obvious that, however we might turn and twist our concepts, we could never, by the mere analysis of them, and without the aid of intuition, discover what [the number is that] is the sum. B 16

Just as little is any fundamental proposition of pure geometry analytic. That the straight line between two points is the shortest, is a synthetic proposition. For my concept of *straight* contains nothing of quantity, but only of quality. The concept of the shortest is wholly an addition, and cannot be derived, through any process of analysis, from the concept of the straight line. Intuition, therefore, must here be called in; only by its aid is the synthesis possible. What here<sup>4</sup> causes B 17 us commonly to believe that the predicate of such apodeictic judgments is already contained in our concept, and that the judgment is therefore analytic, is merely the ambiguous character of the terms used. We are required to join in thought a certain predicate to a given concept, and this neces-

<sup>1</sup> [*Anfangsgründe der Arithmetik*, translated from the Latin, second edition, Halle, 1773, pp. 27, 79.]

<sup>2</sup> [*an jenem meinem Bilde.*]

<sup>3</sup> [Reading, with Erdmann, 5 zu 7.]

<sup>4</sup> [As Vaihinger has pointed out (*Commentar*, i. pp. 303-4), this passage, which in both A and B is made to follow "Some few fundamental propositions . . . exhibited in intuition", is quite obviously displaced. In the above translation the necessary rearrangement has been made.]

sity is inherent in the concepts themselves. But the question is not what we *ought* to join in thought to the given concept, but what we *actually* think in it, even if only obscurely; and it is then manifest that, while the predicate is indeed attached necessarily to the concept,<sup>1</sup> it is so in virtue of an intuition which must be added to the concept, not as thought in the concept itself.

- B 16 Some few fundamental propositions, presupposed by the geometrician, are, indeed, really analytic, and rest on the principle of contradiction. But, as identical propositions, they  
 B 17 serve only as links in the chain of method and not as principles; for instance,  $a=a$ ; the whole is equal to itself; or  $(a+b)>a$ , that is, the whole is greater than its part. And even these propositions, though they are valid according to pure concepts, are only admitted in mathematics because they can be exhibited in intuition.

2. *Natural science (physics) contains a priori synthetic judgments as principles.* I need cite only two such judgments: that in all changes of the material world the quantity of matter remains unchanged; and that in all communication of motion, action and reaction must always be equal. Both propositions, it is evident, are not only necessary, and therefore in their origin  
 B 18 *a priori*, but also synthetic. For in the concept of matter I do not think its permanence, but only its presence in the space which it occupies. I go outside and beyond the concept of matter, joining to it *a priori* in thought something which I have not thought *in* it. The proposition is not, therefore, analytic, but synthetic, and yet is thought *a priori*; and so likewise are the other propositions of the pure part of natural science.

3. *Metaphysics*, even if we look upon it as having hitherto failed in all its endeavours, is yet, owing to the nature of human reason, a quite indispensable science, and *ought to contain a priori synthetic knowledge*. For its business is not merely to analyse concepts which we make for ourselves *a priori* of things, and thereby to clarify them analytically, but to extend our *a priori* knowledge. And for this purpose we must employ principles which add to the given concept something that was not contained in it, and through *a priori* synthetic judgments venture out so far that experience is quite

<sup>1</sup> [Reading, with Erdmann, *jenem Begriffe* for *jenen Begriffen*.]

unable to follow us, as, for instance, in the proposition, that the world must have a first beginning, and such like. Thus metaphysics consists, at least *in intention*, entirely of *a priori* synthetic propositions.

## VI. THE GENERAL PROBLEM OF PURE REASON

B 19

Much is already gained if we can bring a number of investigations under the formula of a single problem. For we not only lighten our own task, by defining it accurately, but make it easier for others, who would test our results, to judge whether or not we have succeeded in what we set out to do. Now the proper problem of pure reason is contained in the question: How are *a priori* synthetic judgments possible?

That metaphysics has hitherto remained in so vacillating a state of uncertainty and contradiction, is entirely due to the fact that this problem, and perhaps even the distinction between analytic and synthetic judgments, has never previously been considered. Upon the solution of this problem, or upon a sufficient proof that the possibility which it desires to have explained does in fact not exist at all, depends the success or failure of metaphysics. Among philosophers, David Hume came nearest to envisaging this problem, but still was very far from conceiving it with sufficient definiteness and universality. He occupied himself exclusively with the synthetic proposition regarding the connection of an effect with its cause (*principium causalitatis*), and he believed himself to have shown that such an *a priori* proposition is entirely impos-

B 20

In the solution of the above problem, we are at the same

time deciding as to the possibility of the employment of pure reason in establishing and developing all those sciences which contain a theoretical *a priori* knowledge of objects, and have therefore to answer the questions:

How is pure mathematics possible?

How is pure science of nature possible?

Since these sciences actually exist, it is quite proper to ask *how* they are possible; for that they must be possible is proved  
 B 21 by the fact that they exist.<sup>a</sup> But the poor progress which has hitherto been made in metaphysics, and the fact that no system yet propounded can, in view of the essential purpose of metaphysics, be said really to exist, leaves everyone sufficient ground for doubting as to its possibility.

Yet, in a certain sense, this *kind of knowledge* is to be looked upon as given; that is to say, metaphysics actually exists, if not as a science, yet still as natural disposition (*metaphysica naturalis*). For human reason, without being moved merely by the idle desire for extent and variety of knowledge, proceeds impetuously, driven on by an inward need, to questions such as cannot be answered by any empirical employment of reason, or by principles thence derived. Thus in all men, as soon as their reason has become ripe for speculation, there has always existed and will always continue to exist some kind of metaphysics. And so we have the question:

B 22 *How is metaphysics, as natural disposition, possible?*

that is, how from the nature of universal human reason do those questions arise which pure reason propounds to itself, and which it is impelled by its own need to answer as best it can?

But since all attempts which have hitherto been made to answer these natural questions—for instance, whether the

<sup>a</sup> Many may still have doubts as regards pure natural science. We have only, however, to consider the various propositions that are to be found at the beginning of (empirical) physics, properly so called, those, for instance, relating to the permanence in the quantity of matter, to inertia, to the equality of action and reaction, etc., in order to be soon convinced that they constitute a *physica pura*, or *rationalis*, which well deserves, as an independent science, to be separately dealt with in its whole extent, be that narrow or wide.



world has a beginning or is from eternity—have always met with unavoidable contradictions, we cannot rest satisfied with the mere natural disposition to metaphysics, that is, with the pure faculty of reason itself, from which, indeed, some sort of metaphysics (be it what it may) always arises. It must be possible for reason to attain to certainty whether we know or do not know the objects of metaphysics, that is, to come to a decision either in regard to the objects of its enquiries or in regard to the capacity or incapacity of reason to pass any judgment upon them, so that we may either with confidence extend our pure reason or set to it sure and determinate limits. This last question, which arises out of the previous general problem, may, rightly stated, take the form:

*How is metaphysics, as science, possible?*

Thus the critique of reason, in the end, necessarily leads to scientific knowledge; while its dogmatic employment, on the other hand, lands us in dogmatic assertions to which other B 23 assertions, equally specious, can always be opposed—that is, in *scepticism*.

This science cannot be of any very formidable prolixity, since it has to deal not with the objects of reason, the variety of which is inexhaustible, but only with itself and the problems which arise entirely from within itself, and which are imposed upon it by its own nature, not by the nature of things which are distinct from it. When once reason has learnt completely to understand its own power in respect of objects which can be presented to it in experience, it should easily be able to determine, with completeness and certainty, the extent and the limits of its attempted employment beyond the bounds of all experience.

We may, then, and indeed we must, regard as abortive all attempts, hitherto made, to establish a metaphysic *dogmatically*. For the analytic part in any such attempted system, namely, the mere analysis of the concepts that inhere in our reason *a priori*, is by no means the aim of, but only a preparation for, metaphysics proper, that is, the extension of its *a priori* synthetic knowledge. For such a purpose, the analysis of concepts is useless, since it merely shows what is contained in these concepts, not how we arrive at them *a priori*. A solution

B 24 of this latter problem is required, that we may be able to determine the valid employment of such concepts in regard to the objects of all knowledge in general. Nor is much self-denial needed to give up these claims, seeing that the undeniable, and in the dogmatic procedure of reason also unavoidable, contradictions of reason with itself have long since undermined the authority of every metaphysical system yet propounded. Greater firmness will be required if we are not to be deterred by inward difficulties and outward opposition from endeavouring, through application of a method entirely different from any hitherto employed, at last to bring to a prosperous and fruitful growth a science indispensable to human reason—a science whose every branch may be cut away but whose root cannot be destroyed.<sup>1</sup>

## VII. THE IDEA AND DIVISION OF A SPECIAL SCIENCE, UNDER THE TITLE "CRITIQUE OF PURE REASON"<sup>2</sup>

A 11 In view of all these considerations, we arrive at the idea of a special science which can be entitled<sup>3</sup> the Critique of Pure Reason.\* For reason is the faculty which supplies the principles of *a priori* knowledge. Pure reason is, therefore, that which contains the principles whereby we know anything absolutely *a priori*. An organon of pure reason would be the sum-total of B 25 those principles according to which all modes of pure *a priori* knowledge can be acquired and actually brought into being. The exhaustive application of such an organon would give rise to a system of pure reason. But as this would be asking rather much, and as it is still doubtful whether, and in what cases, any<sup>4</sup> extension of our knowledge be here<sup>5</sup> possible, we

---

\* [In A follow two sentences, omitted in B]:

Any knowledge is entitled pure, if it be not mixed with anything extraneous. But knowledge is more particularly to be called absolutely pure, if no experience or sensation whatsoever be mingled with it, and if it be therefore possible completely *a priori*.

<sup>1</sup> [End of the new sections added in B.]

<sup>2</sup> [In A: *dienen könne* for *heissen kann*.]

<sup>3</sup> [*hier* added in B.]

<sup>4</sup> [Heading added in B.]

<sup>5</sup> [In A: *eine solche*.]

can regard a science of the mere examination of pure reason, of its sources and limits, as the *propaedeutic* to the system of pure reason. As such, it should be called a critique, not a doctrine, of pure reason. Its utility, in speculation,<sup>1</sup> ought properly to be only negative, not to extend, but only to clarify our reason, and keep it free from errors—which is already a very great gain. I entitle *transcendental* all knowledge which is occupied not so much with objects as with the mode of our knowledge of objects in so far as this mode of knowledge is to be possible *a priori*.<sup>2</sup> A system of such concepts might be entitled transcendental philosophy. But that is still,<sup>3</sup> at this stage, too large an undertaking. For since such a science must contain, with completeness, both kinds of *a priori* knowledge, the analytic no less than the synthetic, it is, so far as our present purpose is concerned, much too comprehensive. We have to carry the analysis so far only as is indispensably necessary in order to comprehend, in their whole extent, the principles of *a priori* synthesis, with which alone we are called upon to deal. It is upon this enquiry, which should be entitled not a doctrine, but only a transcendental critique, that we are now engaged. Its purpose is not to extend knowledge, but only to correct it, and to supply a touchstone of the value, or lack of value, of all *a priori* knowledge. Such a critique is therefore a preparation, so far as may be possible, for an organon; and should this turn out not to be possible, then at least for a canon, according to which, in due course, the complete system of the philosophy of pure reason—be it in extension or merely in limitation of its knowledge—may be carried into execution, analytically as well as synthetically. That such a system is possible, and indeed that it may not be of such great extent as to cut us off from the hope of entirely completing it, may already be gathered from the fact that what here constitutes our subject-matter is not the nature of things, which is inexhaustible, but the understanding which passes judgment upon the nature of things; and this understanding, again, only in respect of its *a priori* knowledge. These *a priori* possessions of the understanding, since they

<sup>1</sup> [*in Ansehung der Spekulation* added in B.]

<sup>2</sup> [In A: as with our *a priori* concepts of objects in general.]

<sup>3</sup> [*noch* added in B.]

have not to be sought for without, cannot remain hidden from us, and in all probability are sufficiently small in extent to allow of our apprehending them in their completeness, of judging  
 B 27 as to their value or lack of value, and so of rightly appraising them. Still less<sup>1</sup> may the reader here expect a critique of books and systems of pure reason; we are concerned only with the critique of the faculty of pure reason itself. Only in so far as we build upon this foundation do we have a reliable touchstone for estimating the philosophical value of old and new works in this field. Otherwise the unqualified historian or critic is passing judgments upon the groundless assertions of others by means of his own, which are equally groundless.

<sup>2</sup>Transcendental philosophy is only the idea of a science,<sup>3</sup> for which the critique of pure reason has to lay down the complete architectonic plan. That is to say, it has to guarantee, as following from principles, the completeness and certainty of the structure in all its parts. It is the system of all principles of pure reason.<sup>4</sup> And if this critique is not itself to be entitled a transcendental philosophy, it is solely because, to be a complete system, it would also have to contain an exhaustive analysis of the whole of *a priori* human knowledge. Our critique must, indeed, supply a complete enumeration of all the fundamental concepts that go to constitute such pure knowledge. But it is not required to give an exhaustive analysis of these concepts, nor a complete review of those that can be derived from them. Such a demand would be  
 A 14 unreasonable, partly because this analysis would not be  
 B 28 appropriate to our main purpose, inasmuch as there is no such uncertainty in regard to analysis as we encounter in the case of synthesis, for the sake of which alone our whole critique is undertaken; and partly because it would be inconsistent with the unity of our plan to assume responsibility for the completeness of such an analysis and derivation, when in view of our purpose we can be excused from doing so. The analysis of these *a priori* concepts, which later we shall have to enumerate, and the derivation of other concepts from them, can easily, how-

<sup>1</sup> ["Still less . . ." to end of paragraph added in B.]

<sup>2</sup> [In A this paragraph is preceded by the heading: *The Division of Transcendental Philosophy*.]

<sup>3</sup> [In A: as here referred to, is only an idea.]

<sup>4</sup> [This sentence added in B.]

ever, be made complete when once they have been established as exhausting the principles of synthesis, and if in this essential respect nothing be lacking in them.

The critique of pure reason therefore will contain all that is essential in transcendental philosophy. While it is the complete idea of transcendental philosophy, it is not equivalent to that latter science; for it carries the analysis only so far as is requisite for the complete examination of knowledge which is *a priori* and synthetic.

What has chiefly to be kept in view in the division of such a science, is that no concepts be allowed to enter which contain in themselves anything empirical, or, in other words, that it consist in knowledge wholly *a priori*. Accordingly, although the highest principles and fundamental concepts of morality are *a priori* knowledge, they have no place in transcendental philosophy, because,<sup>1</sup> although they do not lay at the foundation of their precepts the concepts of pleasure and pain, of the desires and inclinations, etc., all of which are of empirical origin, yet in the construction of a system of pure morality these empirical concepts must necessarily be brought into the concept of duty, as representing either a hindrance, which we have to overcome, or an allurements, which must not be made into a motive. Transcendental philosophy is therefore a philosophy of pure and merely speculative reason. All that is practical, so far as it contains motives, relates to feelings, and these belong to the empirical sources of knowledge.

A 15

B 29

If we are to make a systematic division of the science which we are engaged in presenting, it must have first a *doctrine of the elements*, and secondly, a *doctrine of the method of pure reason*. Each of these chief divisions will have its subdivisions, but the grounds of these we are not yet in a position to explain. By way of introduction or anticipation we need only say that there are two stems of human knowledge, namely, *sensibility* and *understanding*, which perhaps spring from a common, but to us unknown, root. Through the former, objects are given to us; through the latter, they are

<sup>1</sup> ["Because, although they . . . made into a motive" substituted in B for: since the concepts of pleasure and pain, of the desires and inclinations, of free-will, etc., have to be presupposed.]

thought. Now in so far as sensibility may be found to contain  
 B 30 *a priori* representations constituting the condition<sup>1</sup> under  
 which objects are given to us, it will belong to transcendental  
 A 16 philosophy. And since the conditions under which alone the  
 objects of human knowledge are given must precede those  
 under which they are thought, the transcendental doctrine  
 of sensibility will constitute the first part of the science of the  
 elements.

<sup>1</sup> [In A: conditions.]