



Immanuel Kant (1724-1804)

Immanuel Kant is considered by many philosophers to be the most important philosopher since Plato and Aristotle. Having been awoken from his dogmatic slumber by Hume, Kant sought to respond to the scepticism revealed in Hume's analysis of causality by providing a different account of how knowledge is possible at all. In doing so, Kant rejected both Rationalism and Empiricism as providing an adequate account of knowledge. Both were wrong in seeing only one source of knowledge, reason for the Rationalists and the senses for the Empiricists. Kant referred to his attempt to provide a different account of knowledge as a "Copernican Revolution" in philosophy. In this revolution Kant attempts to reconcile the conflict between the traditions of Rationalism and Empiricism in holding that both reason and the senses are necessary for knowledge.

Kant's Copernican Revolution involves rejecting the metaphor of the mind as a mirror of nature, and along with it the assumption, since Plato, that knowledge is merely passive. This previous conception of the mind had led to the epistemological problem of determining how any of the ideas in the mind could accurately copy or correspond to a reality outside the mind. The whole attempt to provide a universal foundation for knowledge required looking outside the mind for an objective reality which our ideas somehow reflected. The Copernican Revolution in philosophy rejects this attempt and instead turns inward, to the structure of the human mind, to find the basis for knowledge. According to Kant, the mind is not passive but rather is actively involved in constituting or setting up the world we experience. Kant draws the conclusion that we cannot know, through the senses or through the understanding (reason), a world that is independent from our experience, a world as it is in-itself (the *noumenal* world). All we can know is the world of appearance (the *phenomenal* world), but the way the world appears to us is structured by the human mind. We don't have to look for sense experience of the necessary connection that Hume had emphasized was required to have knowledge of causality. According to Kant this necessary connection is just the way the human mind works in organizing our experience. Knowledge thus requires both the senses and what Kant referred to as the categories of the understanding, which are the basic ways the mind organizes experience. As Kant famously put it, "the understanding does not derive its laws from, but prescribes them to, nature."

This new conception of the human mind entails that Hume was wrong concerning his fork. Hume had held that all statements concerning knowledge were either *relations of ideas*, which are true *a priori* (Kant refers to these as *analytic* statements), or *matters of fact* (for Kant these are *synthetic* statements). According to Kant there is a third category of knowledge which he refers to as *synthetic a priori* knowledge. This refers to knowledge statements that are not simply true by definition, thus by analysis of our language, but they add to our knowledge of the world and are thus synthetic. But they are also *a priori* in that they are prior to experience. They are prior to experience in that they are those categories by which the understanding prescribes its laws to nature.

The consequence of Kant's Copernican Revolution in philosophy is that the mind is no longer considered to be a passive mirror of nature but rather is active in organizing the world of our experience. Kant attempted to hold on to the Enlightenment goal of objective universal knowledge by assuming that the human mind is basically the same in all of us. Subsequent philosophers would question this assumption and draw far more radical conclusions from Kant's Copernican Revolution.

Kant's most important works were the three great "critiques," *The Critique of Pure Reason* (1781), *The Critique of Practical Reason* (1788), and *The Critique of Judgment* (1790). He wrote the *Prolegomena to Any Future Metaphysics* in 1783 in an attempt to more simply explain the Copernican Revolution which *The Critique of Pure Reason* had initially outlined. Included here are the Preface in which Kant tries to explain his whole project, and how it arose in response to Hume's scepticism. Also included are several sections in the later text in which Kant responds to Hume's analysis of causality.

PROLEGOMENA TO ANY FUTURE METAPHYSICS

[PREFACE]

[I]

My purpose is to convince all those who find it worth their while to occupy themselves with metaphysics: that it is absolutely necessary to suspend their work for the present, to regard everything that has happened hitherto as not having happened, and before all else first to raise the question: 'whether such a thing as metaphysics is possible at all.'

If it is a science, how does it come about that it cannot establish itself, like other sciences, in universal and lasting esteem? If it is not, how does it happen that under the semblance of a science it ceaselessly gives itself airs and keeps the human understanding in suspense with hopes that never fade and are never fulfilled? Whether we demonstrate our knowledge or our ignorance, something certain must at last be settled about the nature of this would-be science; for things cannot possibly go on any longer on their present footing. It seems almost ridiculous, while every other science makes ceaseless progress, to be constantly turning round on the same spot without moving a step forward in the one that claims to be wisdom itself and whose oracle everyone consults.

But when a science has been worked on for a long time and people are full of wonder at the progress it has made, it is not anything so unheard of that someone should finally let it occur to him to ask: whether and how in general such a science is possible

To ask: whether a science is possible, presupposes that the reality of the science is in doubt. But such a doubt offends everyone whose entire goods and chattels may perhaps consist in this supposed jewel; and hence the man who permits himself to utter this doubt should be prepared for resistance from all sides.

None the less I venture to predict that the reader of these prolegomena who thinks for himself will not only have doubts as to his previous science, but in the sequel will be wholly convinced that there cannot be such a science unless the demands expressed here, on which its possibility rests, are fulfilled; and as this has never yet happened, that there is as yet no metaphysics at all. But as enquiry for it can never die away, because interest of universal human reason is much too intimately interwoven with it, the reader will admit that a complete reform or rather a re-birth of metaphysics, according to a hitherto quite unknown plan, is inevitably imminent, however much it may for a time be resisted.

[II]

Since LOCKE's and LEIBNIZ's Essays, or rather since the beginning of metaphysics as far as the history of it reaches, no event has occurred which could have been more decisive in respect of the fate of this science than the attack which DAVID HUME made on it. He brought no light into this kind of knowledge, but he struck a spark at which a light could well have been kindled, if it had found a receptive tinder and if the glow had been carefully kept up and increased.

HUME started in the main from a single but important concept in metaphysics, namely that of the *connection of cause and effect* (together with its consequential concepts of force and action etc.). He challenged Reason, who pretends to have conceived this concept in her womb, to give an account of herself and say with what right she thinks: that anything can be of such a nature, that if it is posited, something else must thereby also be posited necessarily; for that is what the concept of cause says. He proved irrefutably: that it is wholly impossible for reason to think such a conjunction *a priori* and out of concepts. For this conjunction contains necessity; but it is quite impossible to see how, because something is, something else must also necessarily be, and how therefore concept of such an *a priori* connection can be introduced. From this he inferred that Reason completely deceives herself with this concept, in falsely taking it for her own child, whereas it is nothing but a bastard of the imagination fathered by experience. The imagination, having by experience brought certain representations under the law of association, passes off a subjective necessity arising out of this, namely custom, for an objective necessity from insight. From this he inferred: reason has no power to think such connections, not even only to think them universally, because its concepts would then

be mere fictions, and all its ostensibly *a priori* knowledge is nothing but falsely stamped ordinary experiences; which is as much as to say that there is no metaphysics at all, and cannot be any.

Hasty and incorrect as was his conclusion, it was at least founded on enquiry, and this enquiry surely made it worth while for the best brains of his time to have come together to solve the problem in the sense in which he expounded it, if possible more happily, and out of this a complete reform of the science must soon have arisen.

I freely admit: it was DAVID HUME's remark that first, many years ago, interrupted my dogmatic slumber and gave a completely different direction to my enquiries in the field of speculative philosophy. I was very far from listening to him in respect of his conclusions, which were merely the result of his not representing his problem to himself as a whole, and instead only lighting on part of it, which can give no information without taking the whole into account. When we begin from a thought well-grounded but not worked out which another has bequeathed to us, we may well hope through continued reflection to advance beyond the point reached by the sagacious man whom we have to thank for the first spark of this light.

So I tried first whether HUME's objection could not be represented universally, and I soon found that the concept of the connection of cause and effect is by no means the only one by which connections between things are thought *a priori* by the understanding; indeed that metaphysics consists of nothing else whatever. I tried to make certain of the number of these concepts, and when I had succeeded in doing this in the way I wished, namely from a single principle, I proceeded to the deduction of them. I was now assured that they are not, as HUME had feared, deduced from experience, but have their origin in pure understanding. This deduction, which seemed impossible to my sagacious predecessor, and had never even occurred to anyone except him, although everyone confidently used these concepts without asking on what their objective validity is grounded—this deduction, I say, was the most difficult thing that could ever be undertaken on behalf of metaphysics; and, worst of all, any metaphysics that there is anywhere at all could not give me the slightest help, because this deduction has first to establish the possibility of a metaphysics. Having succeeded in solving HUME's problem not merely in a special case, but with regard to the whole faculty of pure reason, I could take sure although still only slow steps towards determining at last the whole extent of pure reason, completely and according to universal principles, in its boundaries as well as in its content. This is what metaphysics needs in order to construct its system according to a sure plan.

[III]

But I fear that the *working out* of HUME's problem in its greatest possible extension (namely in the Critique of pure Reason) may fare the same as the *problem* itself fared when it was first presented. It will be wrongly judged through not being understood; and it will not be understood because people will be willing to skim through the pages of the book but not to think through it, and they will not want to spend this trouble on it because the work is dry, because it is obscure, because it is contrary to all ordinary ideas, and on top of that prolix. Now I admit that I do not expect to hear complaints from a philosopher about not being popular, entertaining and agreeable, when it is a matter of the very existence of a highly prized mode of knowledge, indispensable to humanity, which cannot be settled except according to the strictest rules of scholarly exactitude. . . .

Yet as regards a certain obscurity deriving in part from the prolixity of the plan, which makes it difficult to survey the main points which are important for the enquiry: on this score the complaint is just, and I shall meet it with the present *Prolegomena*.

The former work, which exhibits the pure faculty of reason in its whole extent and boundaries, always remains the foundation to which the prolegomena refer as mere preliminary exercises; for that critique must exist as a science, systematic and complete to its smallest parts, before one can think of allowing metaphysics to make its appearance, or even have a remote hope of so doing.

A new Science, which is wholly isolated and the only one of its kind, may be approached with the prejudice that it can be judged by means of the supposed knowledge that one already possesses, even though it is the reality of this very knowledge which must first be wholly doubted. To do this only produces the

belief that what is seen on all sides is what was already known before, perhaps because the terms sound rather similar. Yet everything must seem extremely distorted, nonsensical and like gibberish, because it is not the thoughts of the author that are being taken as the basis, but only one's own way of thinking which by long habit has become second nature. . . .

The sphere of pure reason is so isolated and so thoroughly interconnected within itself that one cannot touch any part of it without touching all the rest, and cannot accomplish anything without having previously determined the place of each part and its influence on the others. As there is nothing outside pure reason which could correct our judgement within it, the validity and use of every part depends on its relation within reason itself to the other parts, and, as in the structure of an organised body, the purpose of every member can only be deduced from the complete concept of the whole. Hence it can be said of such a critique that it is never reliable unless it is *whole* and *completed* down to the smallest elements of pure reason, and that in the sphere of this faculty one must determine and settle either *everything* or *nothing*.

But even though a mere plan, if it preceded the Critique of pure Reason, would be unintelligible, unreliable and useless, it is on the other hand so much the more useful when it comes after. For it puts one in a position to survey the whole, to test one by one the main points that are important in this science, and to arrange some things better as regards the exposition than could happen in the first version of the work.

Here then is such a *plan*, coming after the completed work. As I was compelled to compose the work itself according to the *synthetic method*, the plan may now be arranged according to the *analytic method*, so that the science shall display all its articulations, as the structure of a quite peculiar faculty of knowledge, in their natural combination.

Main Transcendental Question
Second Part
How is Pure Natural Science Possible?

§ 27

This is now the place to dispose of the HUMEAN doubt once and for all. He asserted, rightly, that we can in no way have insight by reason into the possibility of causality, i.e. of the reference of the existence of a thing to the existence of something else which is posited necessarily by the first. . . .

None the less I am far from holding that these concepts are merely taken from experience and that the necessity which is represented in them is fictitious and mere illusion imposed on us by long habit; on the contrary I have shown adequately that these concepts and the principles drawn from them stand *a priori* before all experience and have their undoubted objective rightness, though admittedly only in respect of experience.

§ 28

We know further *a priori*: that unless we regard the representation of an object as determined in respect of one or other of these moments, we could have no knowledge which would be valid of the object; and if we occupied ourselves with the object in itself, not a single mark would be possible by which I could recognise that it was determined in respect of one or other of the said moments, i.e. belonged under the concept of substance or of cause or (in relation to other substances) under the concept of community; for I cannot conceive of the possibility of such a connection of existence. But the question is not how things in themselves are determined but how knowledge of things by experience is determined in respect of the said moments of judgements in general, i.e. how things, as objects of experience, can be and are to be subsumed under these concepts of the understanding. And then it is clear that I have perfect insight not only into the possibility but also into the necessity of subsuming all appearances under these concepts, i.e. into using them as principles of the possibility of experience.

§ 29

I do very well have insight into the concept of cause, as a concept necessarily belonging to the mere form of experience, and into its possibility as synthetic unification of perceptions in a consciousness in general; but I have no insight at all into the possibility of a thing in general as a cause, because the concept of cause indicates a condition not attached in any way whatever to things, but only to experience, namely, that experience can only be an objectively valid knowledge of appearances and of their sequence in time when the antecedent appearances can be joined with the subsequent appearances according to the rule of hypothetical judgements.

§ 30

Hence the pure concepts of the understanding also have no meaning whatever if they try to leave objects of experience and to be referred to things in themselves (noumena). They serve as it were only to spell out appearances, so that they can be read as experience; the principles which arise from their reference to the world of the senses only serve our understanding for use in experience; beyond it they are arbitrary connections without objective reality, the possibility of which cannot be known *a priori*, nor their reference to objects confirmed by any example, or even made understandable, because all examples can only be taken from some possible experience, and the objects of those concepts can also be found nowhere else than in a possible experience.

This complete solution to the HUMEAN problem, although it turns out contrary to the expectation of its originator, thus rescues their *a priori* origin for the pure concepts of the understanding, and their validity for the universal laws of nature, as laws of the understanding; but in such a way that it limits their use to experience only, because their possibility has its ground merely in the reference of the understanding to experience; not in such a way that they are deduced from experience but that experience is deduced from them, a completely reversed kind of connection which never occurred to HUME.

From this there flows the following result of all the foregoing researches: "All synthetic principles *a priori* are nothing more than principles of possible experience" and can never be referred to things in themselves, but only to appearances as objects of experience. Hence pure mathematics as well as pure natural science can never bear on anything more than mere appearances, and can only represent either that which makes experience in general possible, or that which, as deduced from these principles, must always be capable of being represented in some possible experience.

§ 32

Since the earliest times of philosophy enquirers into pure reason have thought that, besides the beings of the senses or appearances (*phaenomena*) which constitute the world of the senses, there were special beings of the understanding (*noumena*), which were supposed to constitute a world of the understanding. As they took appearance and illusion to be the same (which can well be excused in an as yet uncouth age), they allowed reality only to the beings of the understanding.

In fact, if we regard the objects of the senses, as is proper, as mere appearances, we admit at the same time by so doing that they have a thing in itself as their ground, although we do not know what it is like in itself, but only know its appearance, i.e. the way in which our senses are affected by this unknown something. Thus understanding, precisely by accepting appearances, also admits the existence of things in themselves, and thus far we can say that the representation of such beings which lie at the ground of appearances, and are mere beings of the understanding, is not merely admissible but is unavoidable.

Thus beings of the understanding are admitted, but under inculcation of this rule which suffers no exception: that we know and can know nothing determinate whatever about these pure beings of the understanding, because both our pure concepts of the understanding and our pure intuitions bear on nothing but objects of possible experience, which are mere beings of the senses, and as soon as we depart from these not the slightest meaning is left to those concepts.

§ 33

There is in fact something captious about our pure concepts of the understanding, in respect of the temptation to a transcendent use of them; for that is what I call the use that goes beyond all possible experience. Not only that our concepts of substance, force, action, reality etc., are quite independent of experience and contain no appearance of the senses, consequently in fact seem to refer to things in themselves (*noumena*); but also, to strengthen this supposition still further, they contain in themselves a necessity of determination which experience never attains. The concept of cause contains a rule according to which one state follows from another necessarily; but experience can only show us that one state of things often or, at most, commonly follows another, and can procure neither strict universality nor necessity, etc.

Hence concepts of the understanding seem to have much more meaning and content than if their whole destiny were exhausted in their use merely in experience, and so the understanding insensibly builds on to the house of experience a much more extensive wing which it fills up with nothing but beings of thought, without ever noticing that with its otherwise correct concepts it has transgressed the boundaries of their use.

§ 34

Notwithstanding the independence of our pure concepts of the understanding and principles from experience, notwithstanding indeed the apparently greater extent of their use, nothing can be thought through them outside the field of experience, because they can do nothing but merely determine the logical form of the judgement in respect of given intuitions; and as there is no intuition whatever outside the field of sensibility, these pure concepts have no meaning whatever, for there is no means of exhibiting them *in concreto*. Consequently all such *Noumena*, together with the totality of them, an intelligible world, are nothing but representations of a problem the object of which in itself is well possible; but its solution, because of the nature of our understanding, is wholly impossible, in that our understanding is not a faculty of intuition but merely a faculty of the connection of given intuitions in an experience. Hence experience must contain all the objects for our concepts, but beyond it all concepts will be without meaning as no intuition can be subsumed under them.

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