

Kant

KANT'S LIFE

Immanuel Kant lived all of his 80 years (1724–1804) in the small provincial town of Königsberg in East Prussia. His parents were of modest means, and their religious spirit, nurtured by a sect known as Pietists, was to have a permanent influence on Kant's thought and personal life. His education began at the local Collegium Fredericianum, whose director was also a Pietist, and in 1740 Kant entered the University of Königsberg, where he studied the classics, physics, and philosophy. The German universities were at this time dominated by the philosopher Christian von Wolff (1679–1754), who stimulated philosophical activity by developing a comprehensive system of philosophy along the lines of Leibniz's rationalism and metaphysics. Kant's professor at Königsberg, Martin Knutzen, had come under the influence of this Wolff-Leibnizian approach to philosophy, and inevitably, Kant's university training laid much emphasis on the power of human reason to move with certainty in the realm of metaphysics. Although Knutzen had thus slanted Kant's early thought toward the tradition of Continental rationalism, it was also Knutzen who stimulated Kant's interest in Newtonian physics, an interest that played a very important part in the development of Kant's original and critical philosophy. Upon completion of his university course, Kant spent about eight years as a family tutor, and in 1755 he became a lecturer at the university. In 1770 he was appointed to the chair of philosophy that had been held by Knutzen.

Although Kant's personal life contains no remarkable events, as he did not travel and developed no notable political or social connections, he was, nevertheless, immensely successful as a lecturer and was an interesting conversationalist and charming host. He is often pictured as an old bachelor whose every activity was scheduled with such precision that neighbors could set their watches by when he stepped out of his house each day at half past four to walk up and down his small avenue eight times. Without this discipline, however, he could hardly have produced such a striking succession of famous books as his monumental *Critique of Pure Reason* (1781), *Prolegomena to Any Future*

Metaphysics (1783), *Principles of the Metaphysics of Morals* (1785), *Metaphysical First Principles of Natural Science* (1786), the second edition of the *Critique of Pure Reason* (1787), the *Critique of Practical Reason* (1788), the *Critique of Judgment* (1790), *Religion within the Limits of Pure Reason* (1793), and the small work *Perpetual Peace* (1795).

THE SHAPING OF KANT'S PROBLEM

Kant revolutionized modern philosophy. What prompted this revolution was his profound concern with a problem that the philosophy of his day could not deal with. The elements of his problem are suggested by his famous comment that "two things fill the mind with ever new and increasing admiration and awe . . . the starry heavens above and the moral law within." To him the starry heavens were a reminder that the world, as pictured earlier by Hobbes and Newton, is a system of bodies in motion, where every event has a specific and determinate cause. At the same time, all people experience the sense of moral duty, an experience implying that humans, unlike some other elements of nature, possess freedom in their behavior. The problem, then, was how to reconcile the two seemingly contradictory interpretations of events—one holding that all events are the product of *necessity*, and the other that in certain aspects of human behavior there is *freedom*.

As Kant viewed the drift of scientific thought, he saw in it an attempt to include *all* of reality, including human nature, in its mechanical model. This would mean that all events, being parts of a unified mechanism, could be explained in terms of cause and effect. Moreover, this scientific approach would eliminate from consideration any elements that could not fit into its method. His method emphasized limiting knowledge to the realm of actual sense experience and to generalizations that could be derived by induction from such experience. Pursuing this method, science would have no need for, nor could it account for, such notions as freedom and God.

Kant was impressed by the obvious success and the constant advance of scientific knowledge. What the success of Newtonian physics did for Kant was to raise some serious questions about the adequacy of the philosophy of his day. The two major traditions of his day were Continental rationalism and British empiricism, and Newtonian physics enjoyed an independence from both of these philosophical systems. Since Continental rationalism had been built on a mathematical model, this type of philosophizing emphasized the relation of *ideas* to each other and so had no clear connection with things as they really are. Rationalism could not produce the kind of knowledge Newtonian physics represented, and for this reason its metaphysical speculations about reality beyond experience were considered dogmatic. Kant was to say with some respect that Christian Wolff, whose Leibnizian metaphysics had influenced Kant's earlier thought, was "the greatest of all dogmatic philosophers." This contrast between rationalism and science raised for Kant the question of whether metaphysics

can increase our knowledge the way science obviously can. The dogmatic character of metaphysics was made clear particularly by the variety of conclusions to which metaphysicians had come in their systems of thought, as shown by the differences between Descartes, Spinoza, and Leibniz. But the heart of the matter was that scientists were unraveling the nature of reality and were showing less and less concern about such metaphysical notions as freedom and God and the possibility of moral truth.

At the same time, science proceeded independently of the other major philosophical tradition of Kant's day, namely, British empiricism. Hume's most striking philosophical argument was an attack on the traditional notion of causality. Since all our knowledge comes from experience, and we do not experience causality, we cannot infer or predict any future event from our experience of the present. What we call *causality*, said Hume, is simply our habit of associating two events because we experience them together, but this does not justify the conclusion that these events have any necessary connection. Thus, Hume denied inductive inference. And yet, it is precisely on the notion of causality and inductive inference that science is built. For it assumes that our knowledge of particular events in the present gives us reliable knowledge about an indefinite number of similar events in the future. The logical outcome of Hume's empiricism was that there cannot be any scientific knowledge, and this leads to philosophical skepticism. Kant was left, therefore, with great admiration for science but with serious questions about philosophy because of the dogmatism of rationalism and the skepticism of empiricism.

Although Newtonian physics impressed Kant, science itself raised two major questions for him. The first we have already mentioned, namely, that as the scientific method was applied to the study of all of reality, notions of morality, freedom, and God were threatened by absorption into a mechanical universe. The second problem for Kant was how to explain, or to justify, scientific knowledge. That is, did the scientist give an adequate explanation of what makes his understanding of nature possible? As it turned out, these two problems were very closely related. As Kant discovered, scientific knowledge is similar to metaphysical knowledge. Thus, the justification or explanation of scientific thought on the one hand and metaphysical thought concerning freedom and morality on the other are the same. Kant, therefore, rescued metaphysics without attacking science. Both in science and in metaphysics, our minds start with some given fact, which gives rise to a judgment within our reason. He thus says, "The genuine method of metaphysics is fundamentally the same kind which Newton introduced into natural science and which was there so fruitful." With this interpretation of scientific and moral thought, Kant provided a new function and a new life for philosophy. This function is suggested by the title of his major work, the *Critique of Pure Reason*, for now the task of philosophy became the critical appraisal of the capacities of human reason. In pursuing this new critical function, he achieved what he called his Copernican revolution in philosophy.

KANT'S CRITICAL PHILOSOPHY AND HIS COPERNICAN REVOLUTION

The turning point in Kant's intellectual development was his encounter with Hume's empiricism. He tells us, "I openly confess, the suggestion of David Hume was the very thing, which many years ago first interrupted my dogmatic slumber and gave my investigations in the field of speculative philosophy quite a new direction." Hume had argued that all our knowledge is derived from experience and that, therefore, we cannot have knowledge of any reality beyond our experience. This argument struck at the very foundation of rationalism. Rationalists argued confidently that human reason can derive knowledge about realities beyond experience simply by moving from one idea to another as one does in mathematics. The rationalist proofs for the existence of God were a case in point, and Spinoza's and Leibniz's explanation of the structure of reality was another. Kant eventually turned his back on rationalist metaphysics, calling it "rotten dogmatism," but he did not accept Hume's entire argument, saying, "I was far from following him in the conclusions at which he arrived."

Kant refused to follow Hume all the way, not merely because this would lead to Skepticism, but because he felt that although Hume was on the right track, he had not completed the task of explaining how knowledge is acquired. Nor did Kant wish to give up some of the subjects that concerned the rationalist metaphysicians, such as freedom and God, about which it is impossible to be "indifferent," even though he was prepared to say that we cannot have demonstrative knowledge of objects beyond our experience. Kant, therefore, sought to build on what he thought was significant in both rationalism and empiricism and to reject what could not be defended in these systems. He did not simply combine the insights of his predecessors but rather embarked on a genuinely new approach, which he called *critical philosophy*.

The Way of Critical Philosophy

Kant's *critical philosophy* consists of an analysis of the components of human reason, by which he meant "a critical inquiry into the faculty of reason with reference to all the knowledge which it may strive to attain independently of all experience." The way of critical philosophy is, therefore, to ask the question "What and how much can understanding and reason know, apart from all experience?" Earlier metaphysicians engaged in disputes about the nature of the supreme being and other subjects that took them beyond the realm of immediate experience. Kant, though, asked the principal question whether human reason possessed the powers to undertake such inquiries. From this point of view he thought it foolish for metaphysicians to construct systems of knowledge even before they had determined whether, by pure reason alone, we can apprehend what is not given to us in experience. Critical philosophy for Kant was, therefore, not the negation of metaphysics but rather a preparation for it. If metaphysics has to do with knowledge as developed by reason alone—that is, prior to experience, or *a priori*—the crucial question is how such *a priori* knowledge is possible.

and synthetic. For example, Kant says, "That a straight line between two points is the shortest, is a synthetic proposition. For my concept of *straight* contains no notion of quantity, but only of quality. The concept of *shortest* is thus wholly an addition, and it cannot be derived by any analysis from the concept of a straight line. Intuition must, therefore, lend its aid here, by means of which alone is this synthesis possible." In physics, too, we find synthetic *a priori* judgments; Kant says that "natural science contains within itself synthetic *a priori* judgments as principles." The proposition "In all changes of the material world the quantity of matter remains unchanged" is *a priori*, for we make this judgment before we have experienced every change. It is also synthetic, for the idea of permanence is not discoverable in the concept of matter. In metaphysics we assume that we are extending or increasing our knowledge. If this is so, the propositions of metaphysics, such as the judgment "human beings are free to choose," must be synthetic, for here the predicate adds new knowledge to the concept of the subject. At the same time, this metaphysical judgment is *a priori*, for the predicate *are free* is connected to our idea of all people even before we have experience of all people.

What Kant wanted to show by these illustrations is that it is not only in metaphysics but also in mathematics and physics that we make synthetic *a priori* judgments. If these judgments create difficulties in metaphysics, they create the same ones for mathematics and physics. Kant believed, therefore, that if synthetic *a priori* judgments could be explained or justified in mathematics and physics, they would, thereby, also be justified in metaphysics.

Kant's Copernican Revolution

Kant solved the problem of the synthetic *a priori* judgment by substituting a new hypothesis concerning the relation between the mind and its objects. It was clear to him that if we assume, as Hume did, that the mind, in forming its concepts, must conform to its objects, there could be no solution to the problem. Hume's theory would work for our ideas of things we have actually experienced, but these are *a posteriori* judgments. If I ask, "How do I know that the chair is brown?" my answer is that I can see it; and if my assertion is challenged, I refer to my experience. When I thus refer to my experience, that settles the question, because we all agree that experience gives us a kind of knowledge that conforms to the nature of things. But a synthetic *a priori* judgment cannot be validated by experience. If I say, for example, that every straight line is the shortest way between two points, I certainly cannot say that I have had experience of every possible straight line. What makes it possible for me to make judgments about events before they even occur—judgments that are universally true and can always be verified? If, as Hume believed, the mind is passive and simply receives its information from the objects, it follows that the mind would have information only about that particular object. But the mind makes judgments about all objects, even those that it has not yet experienced, and, in addition, objects do in fact behave in the future according to these judgments we make about them. This scientific knowledge gives us reliable information about

the nature of things. But since this knowledge, which is both synthetic and *a priori*, could not be explained on the assumption that the mind conforms to its objects, Kant was forced to try a new hypothesis regarding the relation between the mind and its objects.

According to Kant's new hypothesis, it is the objects that conform to the operations of the mind, and not the other way around. He came to this hypothesis with a spirit of experimentation, consciously following the example of Copernicus, who, "failing of satisfactory progress in explaining the movements of the heavenly bodies on the supposition that they all revolved round the spectator, he tried whether he might not have better success if he made the spectator to revolve and the stars to remain at rest." Seeing an analogy here with his own problem, Kant says that,

until now it has been assumed that all our knowledge must conform to objects. But all our attempts to extend our knowledge of objects by establishing something in regard to them *a priori* by means of concepts, have, on this assumption, ended in failure. We must, therefore, make trial whether we may not have more success in the tasks of metaphysics, if we suppose that objects must conform to our knowledge. . . . If intuition must conform to the constitution of the objects, I do not see how we could know anything of the latter *a priori*; but if the object (as object of the senses) must conform to the constitution of our faculty of intuition, I have no difficulty in conceiving such a possibility.

Kant did not mean that the mind creates objects, nor did he mean that the mind possesses innate ideas. His Copernican revolution consisted rather in his saying that the mind brings something to the objects it experiences. Kant agreed with Hume that our knowledge begins with experience, but unlike Hume, Kant saw the mind as an active agent doing something with the objects it experiences. The mind, Kant says, is structured in such a way that it imposes its way of knowing on its objects. By its very nature the mind actively organizes our experiences. That is, thinking involves not only receiving impressions through our senses but also making judgments about what we experience. Just as a person who wears colored glasses sees everything in that color, so every human being, having the faculty of thought, inevitably thinks about things in accordance with the natural structure of the mind.

THE STRUCTURE OF RATIONAL THOUGHT

Kant says that "there are two sources of human knowledge, which perhaps spring from a common but to us unknown root, namely, sensibility and understanding. Through the former objects are *given* to us; through the latter they are *thought*." Knowledge is, therefore, a cooperative affair between the knower and the thing known. But, although I am able to distinguish between myself as a knower and the thing I know, I can never know that thing as it is in itself, for the moment I know it, I know it as my structured mind permits me to know it. If colored glasses were permanently fixed to my eyes, I should always see things in that color and could never escape the limitations placed on my vision by

those glasses. Similarly, my mind always brings certain ways of thinking to things, and this always affects my understanding of them. What does the mind bring to the *given* raw materials of our experience?

The Categories of Thought and the Forms of Intuition

The distinctive activity of the mind is to synthesize and to unify our experience. It achieves this synthesis first by imposing on our various experiences in the “sensible manifold” certain forms of intuition: space and time. We inevitably perceive things as being in *space* and *time*. But space and time are not ideas derived from the things we experience, nor are they concepts. Space and time are encountered immediately in intuition and are, at the same time, *a priori* or, to speak figuratively, lenses through which we always see objects of experience.

In addition to space and time, which deal particularly with the way we sense things, there are certain categories of thought that deal more specifically with the way the mind unifies or synthesizes our experience. The mind achieves this unifying act by making various kinds of judgments as we engage in the act of interpreting the world of sense. The variety of our experiences—or “the manifold of experience” as Kant calls it—is judged by us through certain fixed forms or concepts, such as *quantity*, *quality*, *relation*, and *modality*. When we assert *quantity*, we have in mind one or many; when we make a judgment of *quality*, we make either a positive or a negative statement; when we make a judgment of *relation*, we think of cause and effect, on the one hand, or of the relation of subject and predicate, on the other; and when we make a judgment of *modality*, we have in mind that something is either possible or impossible. All these ways of thinking are what constitute the act of synthesis through which the mind strives to make a consistent single world out of the manifold of sense experience.

The Self and the Unity of Experience

What makes it possible for us to have a unified grasp of the world about us? Based on his analysis of the way our minds work, Kant’s answer is that it is the mind that transforms the raw data given to our senses into a coherent and related set of elements. But this leads Kant to say that the unity of our experience must imply a unity of the self, for unless there was a unity between the several operations of the mind, there could be no knowledge of experience. To have such knowledge involves, in various sequences, sensation, imagination, and memory, as well as the capacity of intuitive synthesis. Thus, it must be the same self that at once senses an object, remembers its characteristics, and imposes on it the forms of space and time and the category of cause and effect. All these activities must occur in some single subject. If it were otherwise, there could be no knowledge, for if one subject had only sensations, another only memory, and so on, the manifold of sense experience could never be unified.

Where and what is this single subject that accomplishes this unifying activity? Kant calls it the “transcendental unity of apperception”—what we call the *self*. He uses the term *transcendental* to show that we do not experience the self

directly even though such a unity, or self, is implied by our actual experience. Thus, the idea of this self is *a priori* a necessary condition for the experience we do have of having knowledge of a unified world of nature. In the act of unifying all the elements of experience, we are conscious of our own unity, so that our consciousness of a unified world of experience and our own self-consciousness occur simultaneously. Our self-consciousness, however, is affected by the same faculties that affect our perception of external objects. I bring to the knowledge of myself the same apparatus and, therefore, impose on myself as an object of knowledge the same "lenses" through which I see everything. Just as I do not know things as they are apart from the perspective from which I see them, so also I do not know the nature of this "transcendental unity of apperception" except as I am aware of the knowledge I have of the unity of the field of experience. What I am sure of is that a unified self is implied by any knowledge of experience.

Phenomenal and Noumenal Reality

A major aspect of Kant's critical philosophy was his insistence that human knowledge is forever limited in its scope. This limitation takes two forms. First, knowledge is limited to the world of experience. Second, our knowledge is limited by the manner in which our faculties of perception and thinking organize the raw data of experience. Kant did not doubt that the world as it appears to us is not the ultimate reality. He distinguished between *phenomenal* reality, or the world as we experience it, and *noumenal* reality, which is purely intelligible, that is, nonsensual, reality. When we experience a thing, we inevitably perceive it through the "lenses" of our *a priori* categories of thought. But what is a thing like when it is not being perceived? What is a "thing-in-itself" (*Ding an sich*)? We can obviously never have an experience of a nonsensuous perception. All objects we know are sensed objects. Still, we know that the existence of our world of experience is not produced by the mind. The mind, rather, imposes its ideas on the manifold of experience, which is derived from the world of things-in-themselves. This means that there is a reality external to us that exists independently of us but that we can know only as it appears to us and is organized by us. The concept of a thing-in-itself does not, then, increase our knowledge but reminds us of the limits of knowledge.