

## NOTES ON KANT'S *PROLEGOMENA*

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*Editor's Note:*

*With the following article we continue our series of publications from the Nachlass of John Niemayer Findlay, issued with the consent of Findlay's son, Paul. This essay on Kant is derived from notes, fully written out, distributed by Findlay in his Boston University course on "Great Philosophers" in 1978, the great philosophers in question being Plato, Spinoza, Kant, and Wittgenstein.*

*Much of this article is expository, aimed at beginning students of philosophy reading Kant's Prolegomena for the first time. But sprinkled throughout are characteristically profound criticisms, some of them are not contained in Findlay's book, Kant and the Transcendental Object, published by Oxford in 1981.*

*In incidental remarks made before the Society for Neoplatonic Studies, Findlay mentioned that the three works of philosophy that most inspired him were "the Timaeus of Plato, which deployed the Forms cosmologically, the Enneads of Plotinus, which organized them around an Absolute, and the Logic of Hegel, which set them all in dialectical motion."*

*Given the tendency of Findlay's thought to take flight "from the Alone to the Alone," his natural metaphysical antagonists were Aristotle, Kant, and Wittgenstein, about each of whom he wrote at length. Findlay's strategy against his three antagonists was to demonstrate that all three were deep metaphysicians despite themselves, and despite their followers and interpreters. Thus, Aristotle emerges, in Findlay's analysis, as a closet Platonist (see "Aristotle and Eideticism," in Philosophical Forum, Winter 2005, Fall 2006).*

*In this article and Findlay's later book, Kant emerges as a relatively unemancipated child of German rationalism, working within the framework of ideas established by Wolff and Baumgarten. (Findlay was the only person I have known who had read all of Wolff's Latin works.) Kant's pre-Critical "monadological metaphysics," combining a Leibnizian notion of substance with a Newtonian notion of space and a kind of Augustinian notion of time, is a remarkable achievement, and Findlay deserves credit for recognizing how much of the pre-Critical metaphysics survived into Kant's Critical period.*

*Findlay's quarrel with Wittgenstein—whom he met and disliked—will be detailed in the forthcoming articles in this series.*

Immanuel Kant spent all his life in Königsburg in East Prussia (now Kaliningrad). Most of his life was spent at the University, first as an instructor (1755–70) then as a professor (1770–1804). In his pre-professorial days he lectured on an inconceivable number of subjects, including mathematics, anthropology, geography, and physics in addition to philosophy.

In philosophy, Kant taught a Metaphysics or theory of real being which stemmed from Gottfried Wilhelm Leibniz (1646–1715), Christian Wolff (1679–1754), Wolfgang Baumgarten (1714–62), August Crusius (1712–76), and many others. This Metaphysics was confidently rational and never questioned the capacity of human reason to fathom the deepest secrets of reality. Using a number of fundamental concepts of great abstraction, for example, Substance and Attribute, Quality and Relationship, Essence and Existence, Possibility, Contingency and Necessity, Cause (or Reason) and Effect, Simplicity and Complexity, Unity, Plurality and Number, Power (Faculty) and Active Force, Extension and Duration, and attempting to clarify and in some cases to define such fundamental concepts, they set up axiomatic principles of high generality and sought to derive and to prove other similar principles from these. A few of their axioms and theorems may be cited: (1) Being is primarily a matter of possibility or essence to which existence adds something extra; (2) the prime essences are those of simple substances into which all complex natures can be analyzed; (3) each individual substance consisting mainly of its powers has a wholly distinctive essence (no two substances are quite alike); (4) there is always a sufficient reason why anything exists or is as it is and not otherwise; (5) the manifest qualities are expressions of the active energizing of their permanent natures and are wholly phenomenal; (6) space, not being resolved into simple elements is a well-founded appearance springing from the interactions of simple substances; (7) the soul which has sensations and thoughts is a wholly simple substance and therefore indestructible; (8) finite substances limited in nature and power exist contingently and demand a prime cause which exists necessarily; (9) God, a comprehensively real and infinitely powerful being, exists of necessity.

Kant's early writings, in his pre-professorial period, for example, *The Only Possible Way to Prove God's Existence* (1763), work within this metaphysic. In 1770, Kant became a professor at Königsburg and gave his celebrated dissertation *On the Form and Principles of the Sensible and Intelligible World*. In this work, he argues that Space and also Time cannot belong to the real world of things in themselves but only to the ways on which such things appear to us. They are not how external things really are, but how they seem to us: They are forms of phenomena, not of things in themselves. They do not belong to "real" reality since they are neither substances nor qualities nor relations, the only categories we can recognize: It is also impossible to conceive of them satisfactorily since they do not permit analysis into wholly separate parts or into parts at whole, being indivisible

infinite wholes of which we can form no satisfactory conception. Time with its restless flux also passes all clear conception. Our capacity to be quite sure of their structure even in cases that we have not quite as yet experienced, also proves them to be mental structures which we bring to things and in which experiences are cast. Things as they in themselves are neither in space nor in time. The basic simples that underlie phenomenal bodies, the simples which underlie our thoughts and mind-states and are known as our soul are (also) not given to our senses. This applies even more to the Great Coordinating Simple, that is, God.

After 1770 Kant's thought developed further to his so-called Critical Position, which was expressed in the *Critique of Pure Reason*, published in Riga in 1781, and more popularly in the *Prolegomena to any Future Metaphysics*, published in 1783.

Kant argues in the *Critique* that:

1. Space and Time are pure forms of our sensibility, not of things as they are in themselves.
2. While we can form concepts of the underlying things in themselves which underlie phenomenal bodies and inner thoughts, we can have no knowledge of such things. We can think of them, they are thinkables—Noumena—but they are not knowables. Knowledge involves the application of concepts to what we can see or sensibly intuit to what appears before us: It is combined to the phenomenal aspects of things. Of these phenomenal aspects we can have knowledge, even in advance of actual experience since appearances have to be structured so as to fit the forms of our intuition and the categories or basic patterns of our understanding or conceptions.
3. Hence, natural science is possible since the world has to be geared to our understandings, but such natural science cannot penetrate beyond phenomena to the noumenal aspects of things in themselves.
4. Explanatory concepts such as the soul and its Absolute Freedom of Choice, the Infinite Total Cosmos, or God—the source of the Total Cosmos—can never yield knowledge. We cannot prove the existence of these objects since they transcend phenomenal experience. Nevertheless, such transcendental ideas may perform a valuable role in regulating our scientific procedures and also our moral endeavors and we can have a rational faith as to their reality which can never become equal to knowledge. Only after this life can we hope for an intuitive understanding, not based on sense encounter, which may acquaint us with the noumenal side of things, viz., with things as they are in themselves.

The *Critique of Pure Reason* proceeds synthetically; that is, it lays a foundation for what underlies phenomenal knowledge. The *Prolegomena* expounds these

themes analytically; that is, it proceeds from the assumption that we *do* have reliable knowledge of Space and Time, and also in Natural Science, and tries to explain how this is possible. How can we have certain knowledge that transcends our experience? The answer is that such knowledge depends on the structuring forms that we bring to experience which gives us advanced certainty of its general pattern. But we have no knowledge of things that altogether transcend experience, viz., the noumenal aspects of reality. Of these things we can have only ordering ideas since these aspects of objects are never phenomenally given to us.

Kant, in the introduction to the *Prolegomena*, raises the question whether Metaphysics, the study for what is in and of itself, is possible at all. While a vast number of philosophers have tried to sketch the nature of being, there has been no agreement or advance in their investigation. The German metaphysicians of the 18th century have made great use of the principle that nothing exists or is the case without sufficient reason for its being so, and they have believed that it has entitled them to look for a cause as the sufficient reason of everything that has happened.

This assumption, however, has been questioned by David Hume, who doubted whether any existence entailed the reality of some prior existence which was its cause. "We can not at all see why, in consequence of the existence of one thing, another must necessarily exist, or how the concept of such a things can rise *a priori* [. . .] Reason was altogether deluded with reference to this concept, which she erroneously considered as one of her own children, where as it was nothing but a bastard of imagination, impregnated by experience, which subsumed representations under the law of association and mistook a subjective necessity (habit) for an objective necessity arising from insight."

Kant says that it was Hume's debunking of the *a priori* certainty of causal connection that first interrupted his dogmatic slumber and led him to ask whether there might not be *other* cases of *a priori* concepts and certainties exposed to similar objections: He found, he says, that there was a whole family of such *a priori* concepts and principles (Substance, Number, Possibility, etc.) which look as if we could conceive or imagine them without application but which are nonetheless necessary to human knowledge. These he studied and attempted to justify in the *Critique of Pure Reason*, and while he proceeded there synthetically from a comprehensive investigation of human reason, to the justification of various forms of human knowledge, he will now assume that various forms of knowledge are possible and exist, and proceeded analytically to investigate the presuppositions which underlie their possibility.

Kant is going to show that Cause and other similar concepts apply of necessity to human experience because they are the structuring principles of that experience and things must appear to us as conforming to them: We cannot, however, apply them beyond experience, at least not so as to yield certain knowledge, and this is the valid element in Hume's criticism. Kant will try to show that even if we can,

without contradiction, imagine such concepts not to be applicable to things as they are in themselves, they must have application to what appears to us and what is experienced by us. Kant will thus offer a justification of a metaphysic, which is immanent, which remains within the limits of possible experience not of one which is transcendent, which ventures beyond appearances to things in themselves.

In the preamble which follows, Kant observes that Metaphysics, if possible at all, cannot be empirical, founded on mere facts of physics or psychology: It must be rationally necessary, true no matter what, and so not capable of confirmation or refutation by any fact of experience. Its certainties must be knowable in advance of detailed experience of fact and presupposed by the latter, it must in short, be *a priori* not *a posteriori*. There are, however, some *a priori* judgments, which are merely trivial and analytic, and these have no importance either for immanent or transcendent metaphysic. The only judgments that are of importance for metaphysic are those which are not trivial and analytic, but informative and substantial. Though *a priori*, they must be synthetic, that is, they must add something to our concepts of things not merely analyze them. Kant thus proceeds to discuss the distinction between analytic and synthetic judgments.

Kant explains an analytic judgment as being one in which there is nothing in the predicate concept which has not been thought, perhaps indistinctly, in the concept of the subject. Thus, it is certainly part of what we understand by a body that it should be extended in space and hence the Judgment "All bodies are extended" is analytic. It is not part of what we understand by a body that it should have weight, hence the Judgment "All bodies have weight" adds something to our concept of bodies and so not analytic but synthetic. Analytic Judgments are validated by the principle of contradiction: to affirm of something whose concept involves extension that it is not extended would be to contradict oneself which would be to say that "Certain extended things are unextended." Similarly, if being yellow is part of anyone's concept of gold, then to say "Gold is not yellow" would be self-contradictory.

Kant does not sufficiently realize that different concepts may be associated with the same name and for some people, "Bodies are heavy" may be analytic for some people and not for others. In many cases it is quite unfixed whether or not something is part of a given concept; for example, is it or is it not part of what we understand by being a man that a man should have eyes, should be mortal, and should be capable of levitation? Should we refuse to acknowledge someone as a man if he levitated? Kant also simplifies the situation by talking as if all judgments had subjects and predicates: Many have much more complex structures, for example, if A were B, C would be D; X and Y are between A and B; and so on. But his general view is not unacceptable, that there are some judgments which it would be self-contradictory to deny and which depend on the content of the concepts in

them (e.g., if A is bigger than B, and B is bigger than C, then A is bigger than C), and which are therefore analytic, whereas others, even if true and necessary, do not depend on the contents of the concepts in them; for example, Light always travels in straight lines, and could be denied without self-contradiction.

Kant then goes on to argue that all judgments which have to be validated by experience are synthetic; for example, "Some babies are born dead" cannot be validated by considering the concept of a baby or of being dead, only upon encountering individuals and facts are they validated. But Kant goes on to argue that all true mathematical judgments, though not empirical—since they carry with them the notion of necessity—are synthetic: It would not be self-contradictory to deny them.  $7 + 5 = 12$  is a necessary arithmetical truth, but Kant argues it is not part of the concept of the sum of 7 and 5 to amount to 12, nor of 12 to be equal to the sum of 7 and 5. It is only by putting cases of 7 and cases of 5 together in concrete intuition and counting them that we see that they amount to a case of 12.

Most modern analysts think that if numerical concepts are clearly defined, arithmetical judgments involving them are all analytic: Anyone who defined two to be a property of a class consisting of something and something else and another two as a class consisting of another something and another something else, and *four* as a class containing all of the members of the other two classes and nothing else, the classes in question having no common members, will readily see that the sum of a class of two members and another class of two members is a class of four members. If one has something and something else and one has another something and another something else, then one has something and something else and something and something else, that is,  $2 + 2 = 4$ .

It is also clear, Kant argues, that most important geometrical judgments are synthetic; for example, a straight line is the shortest distance between two points, and that it is only when we have resorted to intuitive constructions in space that we see the necessity in question. That space has three and only three dimensions would be another judgment in point. The position of modern theory is complex and believes that some geometrical judgments are manifest in purely abstract and non-pictorial terms while others are merely empirical ones for our world there being different possible geometries, for example, elliptical, hyperbolic, etc., as well as the Euclidian space in which Kant alone believed. It is, however, arguable that there are some principles regarding space and time which are necessary and synthetic just as Kant argued, but it is less clear what these are than he imagined.

Kant now points out that while metaphysics, as the science of what is, might embrace some purely analytic judgments—its really important judgments would be synthetic; for example, that substance is permanent and cannot be diminished or increased in amount, or that nothing exists without a sufficient reason or cause. We are therefore faced with a comprehensive problem: How is it possible for us to have knowledge which is both *a priori* and synthetic, that is, which is not based on

experience and is not an analytic consequence of the content of our concepts? And how, if we can see such knowledge to be possible, is it possible in the case of metaphysics which wants to make non-analytic, non-empirical judgments about all being? We know that mathematics (i.e., arithmetic, geometry, and rational physics) is possible, since it exists, and we know that natural science is possible since it exists, though it would seem to involve some principles, for example, the permanence of material substance which are non-empirical yet not analytic. Are we also to allow the possibility of a metaphysic which goes entirely beyond all experience and proves the existence of God, Free Will, and Immortality? Kant is leading us to his justification of non-trivial, non-empirical structuring certainties in mathematics and natural science in terms of his doctrine of *a priori* subjective or mental structuring, metaphysics will be allowed a place providing it remains within phenomenal, empirical limits, but if it ventures beyond these it will no longer have any claims to be scientific, though it may still have inspirational, regulative validity.

Kant's whole argumentation assumes that there is a problem in our having non-trivial non-empirical knowledge of the whole of being, both of that which appears to us and that which transcends experience. He has been criticized on grounds of crypto-empiricism; that is, he does not consider the possibility that the general structure of reality may impinge on our awareness and lead to certain *a priori* anticipations just as its detailed contingent structure impinges on us through the senses. Our minds may be geared to think of things as they in fact independently are. The argument, therefore, that whenever we can anticipate how things will be structured, this must only reflect that cast of our minds not of the way of things is questionable. It may *both* reflect the cast of our minds and the way of things, as Crusius, one of Kant's contemporaries, in fact argued.

Kant now goes on to the first part of his transcendental problem, that is, the investigation of the mental structures which make mathematical knowledge possible. He contends that in both geometry and arithmetic we cannot operate with mere concepts: We have to *construct* what we are considering *intuitively*. We have to illustrate our concept, the meaning of our terms, in some things that we can actually look at or see in an extended use of looking at or seeing (Ger. "Aus-schauen"). But since geometry established principles which we know can never have empirical exceptions and which are in consequence *a priori*, we seem to have to believe in a sort of looking at things, an intuition, which is *a priori* and not sensuous. Thus, when I look at a geometrical diagram, I have the pure intuition of the spatial figure which far exceeds in accuracy (in fact, infinitely) what the external senses reveal and there is a similar pure intuition when I count instances to illustrate an arithmetical truth. This intuition is a sort of permanent framework which I carry around with me and within which I intuit everything that I do intuit through the senses. Space is the permanent framework or form of outer intuition



and so all that I perceive outside of myself is perceived as in space and as obedient to the structuring laws of space. In the same way, Time is the structuring form of inner intuition, of my intuition of my own successive mental acts, feelings, etc., and so all these mental acts appear as in time and so also do the external objects with which these acts are concerned. Kant also thinks that since all counting depends on my successive mental acts which I remember and put together, all number in the world reflects the structuring temporality of my experience. Kant argues that if our intuition were of things in themselves we could only have such intuition when concrete things were being actually presented to us in experience, never in advance of experience: Hence, we could never be certain whether outer things would continue to be infinitely extended and divisible and obey the other structuring principles of space. In the same way we could not be certain that our mental life would continue in time and proceed in countable units which correspond to countable sets of objects.

Arithmetic would hence be endangered: Things might cease to be as they are in our experience of time. Neither Geometry nor Arithmetic can, however, be endangered if space and time are structuring forms of our own conscious experience, the ways in which we intuit objects. Of these Kant assumes we can have certain knowledge and [the] certainty that they will not change and hence, complete confidence in phenomenal reality.

Kant says his view is not idealistic: He is not affirming that there are not real things beyond our minds which we do not make by our mental activities. He is only saying that we can only know these real things in the structuring forms in which they appear to the mind and not as they are in abstraction from those structuring forms or in themselves. Physicists have long held that color, smell, sounds, etc., do not exist in the physical sense but are only ways in which physical things appear to our senses. Kant says he has only gone a little further in making space and time also belong to the realm of appearance, ways in which we intuit things. But this doctrine does not destroy the possibility of knowledge but rather vindicates it, since it is only if space and time are structuring forms of intuition that we can be sure that whatever we experience will conform to them.

It may be maintained that Kant has not shown that there may not be a coincidence between the structuring forms of appearance and the structuring forms of reality: The mind may be such as to have an advance intimation of the general pattern of reality into which the detailed material of sense experience can be fitted. As it is perceived or thought of, so it may also be. Kant has also presumed that we are absolutely sure of the structuring principles of our own intelligence. But this itself involves *a priori* knowledge which is synthetic, since it is not self-contradictory to suppose that minds might cease to perceive and think in the ways that they do. Kant has really just shifted the problem of the *a priori* synthetic from reality to the mind.



Having shown how we can have *a priori* synthetic knowledge in arithmetic and geometry, Kant goes on to show how we can have *a priori* synthetic knowledge of certain basic principles essential of natural science. Kant first observes that we can only speak of nature and natural science where there is a possibility of establishing universal laws; that is, *necessary* connections between cases of one property and cases of another, bodies in proportion to their mass and in direct proportion to the square of their distance tend to move toward one another. Such laws cannot, however, be established analytically since it is not self-contradictory for them to be untrue as it is not possible to establish them empirically since they extend to cases we have never experienced and bring in an element of necessity which experience never reveals. In the objects which we intuit with the senses, mere things in themselves, we could never be sure that they obey any invariable, necessary laws. But there are in fact many things which we know *a priori* regarding natural realities, and from which certain other not wholly *a priori* principles can be deduced, thereby leading to a pure theory of nature which is the necessary background for the physics which learns from experience.

Some of the principles of this pure theory of nature bring in concepts such as motion, impenetrability, and inertia which stem from experience, but there are others, such as the permanence of substance, and the determination of every event according to consistent laws which have to be assumed before we can learn nothing from experience. We have accordingly to ask how this *a priori* synthetic knowledge of nature is possible. Kant goes on to draw a far-reaching distinction between judgments of perception and judgments of experience. The former have nothing objective about them and merely involve a connection among *my* personal experience of things: What I perceive as a room is now also warm; whenever I taste the substance I identify as wormwood, I find it is bitter, etc. Judgments of experience, on the other hand, purport to have universal validity, to represent knowledge of objective realities, to be true not only for the moment but at all times, and to be true for others as well as for ourselves. How is this universal, objective reality to enter into our judgments? It is no good appealing to things in themselves since our knowledge extends only to appearances. How can appearances be so structured as to make knowledge of apparent things possible? Kant answers that this is possible insofar as certain concepts are brought in by the structuring mind and are applied to appearances: These concepts are *not* derived from experience but from the resources of the thinking mind. Plainly, the concepts permanent substance and causal connection are among these *a priori* concepts to which Kant gives the name of "categories," but he desires further to arrive at a complete list of all the *a priori* categories involved in knowledge, and to set up such a list in a regular manner to deduce them according to some definite principle. Kant decides that the *a priori* categories involved in all knowledge will reveal themselves if we examine our judgments, that is, acts of mind in which we

apply concepts to intuitively given cases so as to arrive at connections which may be objectively true at all times and for all minds. With this purpose in mind, he gives a table of judgments which was accepted (with some Kantian additions) by most 18th-century German metaphysicians, and he attempts to construct a parallel transcendental table of categories, indicating the pure concepts brought in by the mind in giving objective reference to its experience. The table of Judgments enumerates the following:

1. **DISTINCTIONS OF QUANTITY:** Our judgments may be about All, or Some, or a single definite One of a certain class of things, for example, *All men, some men, this man* Socrates, and corresponding to these distinctions we have transcendental conceptual distinctions between Totality, Plurality, and Unity. There must be definite numbers of member so each class regarding which we want to make judgments.
2. **DISTINCTIONS OF QUALITY:** Our judgments may be Affirmative, Negative, or Limitative; for example, This act is *Just*, This act is *Unjust*, This act is *not quite Just*, and corresponding to these distinctions we have transcendental distinctions of Positive Quality, Total Absence of a given Positive Quality, and possession of a Quality in a Certain Definite Degree. There must be definite sensible qualities, present in varying degrees, by which the really existent is distinguished from its empty non-existence.
3. **DISTINCTIONS OF RELATION:** Our judgments may be Categorical, Hypothetical, or Disjunctive; for example, Gold *is* a yellow metal, *If* Gold is heated to degree "x" it will melt, A metal ("z") is *either* Gold, Silver, Copper, Lead or Iron, etc. Corresponding to these distinctions we have transcendental distinctions of substance, what we look for as the subject of categorical judgments, the basis of our either/or judgments.
4. **DISTINCTIONS OF MODALITY:** Our judgments may be Problematic, Assertoric, or Apodictic; for example, This mixture *may be* explosive, This mixture *is* explosive, This mixture *must be* explosive. To these distinctions there correspond transcendental distinctions of Possibility, Real Existence, and Necessity.

#### LOGICAL TABLE OF JUDGMENTS

1	2
<i>As to Quantity</i>	<i>As to Quality</i>
Universal	Affirmative
Particular	Negative
Singular	Infinite

3	4
<i>As to Relation</i>	<i>As to Modality</i>
Categorical	Problematic
Hypothetical	Assertoric
Disjunctive	Apodeictic

TRANSCENDENTAL TABLE OF THE  
CONCEPTS OF THE UNDERSTANDING

1	2
<i>As to Quantity</i>	<i>As to Quality</i>
Unity (Measure)	Reality
Plurality (Quantity)	Negation
Totality (Whole)	Limitation
3	4
<i>As to Relation</i>	<i>As to Modality</i>
Substance	Possibility
Cause	Existence
Community	Necessity

PURE PHYSIOLOGICAL TABLE OF THE  
UNIVERSAL PRINCIPLES OF  
NATURAL SCIENCE

1	2
Axioms of Intuition	Anticipations of Perception
3	4
Analogies of Experience	Postulates of Empirical Thought in General

It may be observed that Kant's deduction of the categories from his table of judgments is extraordinarily slipshod and badly worked out and there are countless cases in which we use the Judgment form without the corresponding category or in which we use the category without the corresponding judgment form. Thus, If/Then judgments are not necessarily concerned with Cause and Effect; Either/Or with an interacting community of substances; categorical judgments with substances and their qualities. A very general justification of the deduction alone is possible: We can say that objective references in judgments involves denumerable items forming clearly distinct units, qualities present or absent in varying degree, permanencies of substantial natural units and regular causal connections among

them, and definite possibilities and necessities prescribed or allowed by the natures of the substantial units concerned.

Kant goes on to say that objective reference is only possible insofar as there are necessary rules connecting appearances with one another: Objects distinct from our consciousness are not known in and for themselves, they are only knowable insofar as they reveal themselves in phenomenal regularities which we cannot arbitrarily change (regularities of coexistence in the same phenomenal thing or of phenomenal states consequent upon other phenomenal states, etc.). It is only the presence of such phenomenal regularities which makes judgments of experience possible. Kant says that all phenomena in space and time must be capable of division into appropriate units and hence countable and measurable and also that none of them can be absolutely void of quality, but must always have some degree of positive quality which distinguishes them from empty space and time (which are nothing objective, nor capable of being independently experienced and also from one another).

According to Kant, the regular coexistence of properties, regular laws of change according to definite conditions, and mutual interaction of everything with everything, are necessary if we are to have experience that is objective and concerning which we can make empirical judgments. Kant (*Prolegomena*, 26) makes very plain that his principles do not tell us at all how things in themselves are interconnected but only how appearances must be interconnected if they are to yield anything like valid empirical knowledge. How all this happens, how the thing itself binds its various phenomenal properties together, how it acts on other phenomenal things and causes their properties to change, and what, finally, things as they are in themselves really are like, we can form no concept at all: We can only form concepts as to the way appearances must regularly follow upon one another in time or be assembled in space in order that we may attribute them to distinct, lasting, substantial units which can be phenomenally described and numbered, and also determine when and how there is a causal connection or interaction among their phenomenal states. Since we cannot know things in themselves, regularities of appearance are the only respect in which we can know them or judge their character or interconnection.

Phenomenal regularity is the necessary substitute for numerical connection and this is the answer to Hume (*Prolegomena*, 27–30).

This leads to a very paradoxical consequence in regard to phenomenal nature (*Prolegomena*, 36) that its basic structuring principles are derived from our understandings and are *prescribed* to phenomenal nature by our understanding and are *not derived from* nature insofar as it is a thing in itself. Things in themselves do not occupy space literally and are not separated by anything like spatial distances and do not have anything like simultaneity or succession among their manifestations. We cannot therefore directly distinguish them from one another or say what each is like or how they are ordered in relation to one another or how their character-

istics are connected with those of other things in themselves in a necessary manner. We can only pin them and their connections are arrangements down by clumps of phenomenal properties which go together in space and continue together in time, and by the regular ways in which the appearances in one phenomenal clump change with those in another. This means that noumenal differences, relations, and interactions can only be known to the extent that they correspond to phenomenal differences, relations, and interactions in space and time, and that whatever *else* there may be to them is unknown and unknowable. Hence while things in themselves and their non-spatial, non-temporal features and arrangements are responsible for the phenomenal order, we can never know *how* they are thus responsible, nor what they are. Hence, considering our deep ignorance, we can say that the phenomenal order is due to our own mental structuring, to our forms of intuition, and to our categories. Strictly speaking, we are not the sole creatures of the phenomenal order, but are the transposers or translators of noumena into phenomena in ways and in accordance with principles which are as unknown as the text from which the translation has been done. It has been done unconsciously and prior to all experience by a power in our noumenal selves called the Productive Imagination, a faculty whose nature and working can only be thought of by way of its phenomenal effects and not in and for itself.

We may, however, question whether, on Kant's assumptions, we ought to be said to be as wholly ignorant of our own productive imagination and of the noumenal things and situations which stimulate them. We must at least know that things in themselves have as many distinct parts, aspects, and relations as we distinguish among appearances, even if we shall never know what those parts, aspects, and connections are like intrinsically. Kant has been taken by many to hold that the mind in its apprehension of phenomenal objects is purely and solely constructive, that confronted by a disordered manifold of impressions it locates them where it wishes in space and time only in such a way as to satisfy categorical requirements. On this view, it does not categorize Nature, or translate it into a space-time language of permanence and causation, but inverts the whole story. Such an interpretation would, however, make nonsense of the causative role of things in themselves as underlying appearances and responsible for them. It would also fail to explain how we all construct this same phenomenal picture of the world. Kant must be taken to mean that the regularities we discern in nature are the result of our own translation of noumenal into phenomenal connections, and that we are sure that nature will be regular since nature has been translated into phenomenalese. We can conjecture but not know the corresponding order of things in themselves, since we cannot talk noumenalese.

One point not touched in the *Prolegomena*: Why do we need to have Judgments which are not merely subjective and perceptual but also are objective? This is a point which Kant never makes totally explicit.

In the *Critique of Pure Reason*, however, passages which contend that it is only if there are objective permanencies which can be contrasted with the changeable acts and attitudes of the mind, that the latter can, themselves, be distinguished and judged about. Without these, the acts and attitudes of the mind, if such they may be called, would be a mere flux or vanishing impression about which no judgment would be possible. If there are phenomenal groupings or sequences of a regular sort which can be regarded as objective and independent of our ways of considering them and running through them, which vary from situation to situation, we can have a side of our mental life which is object-oriented and regular and which can be distinguished from another side which varies arbitrarily. But if there were no such objective limitations and regularities, everything would become a wild phantasmagoria, and we would not be able to distinguish ourselves as thinking objects and say anything definite and true about ourselves. Thus, our subjectivity is itself dependent upon the objective regularities which involve the application of the categories. These points are not, however, brought out with perfect clarity even in the *Critique*.

Kant now goes on, in the third part of this main transcendental problem, to deal with the sort of metaphysics which is not content to use concepts in the categorization and judgment of phenomenal objects in space and time, but which attempts to go wholly beyond all such objects and so to transcend every possible experience. Such transcendent metaphysics is not satisfied to explain one phenomenal state of affairs by another which conditions it, but wishes to discover a first state of affairs which requires *no* prior states of affairs by which its being the case is explained or conditioned. Such an unconditioned state of affairs involves the posited existence of some object which is itself unconditioned and such an unconditioned object can never be an object of experience. For in time and space, every phenomenal state of affairs or existence involves others which condition it or complete it. At no point can we discover a point at which reason can rest in the sense that all is not explained. Our thought, in its quest for explanation is irresistibly tempted to posit the reality of certain unconditioned objects which transcend experience, and those objects are called by Kant "Transcendental Ideas of Reason." They can never be objects of knowledge since knowledge involves the application of concepts to intuitive material given in space and time. Nonetheless, these ideas can have considerable uses in guiding our investigations and judgments in profitable directions.

Kant says there are three and only three such transcendental Ideas of Reason and he connects them with the three basic types of Judgment: the categorical, which attributes predicates to a subject; the hypothetical, which attributes states of affairs to a prior condition; and the disjunctive, which attributes *all* possibilities to a single, necessary object.

1. The first transcendental Idea is that of the SOUL as the simple substance underlying all our representations and manifest in all our thought acts: We argue

that there *must* be such a simple substance to explain the interconnection of everything that we experience, or all that we experience is attributed to ourselves and seems held together by ourselves. There is then a tendency to go further and regard such a simple center to all experience as indestructible since having no elements out of which it is composed it cannot be dissolved into such elements. And there is also an idealistic tendency to treat the existence of such simple substances as more certain than the existence of external things in space, and the latter as perhaps only existing in and for the representations of the simple soul. Kant argues, however, that the Soul, as the simple substance which underlies all our acts and experiences—and unifies them all—is not and cannot be a phenomenal object and hence can be nothing of which we can have knowledge. Substances are knowable only insofar as they involve appearances which go together, and the soul as an object of knowledge is consequently no more than the unified stream of our thoughts. We cannot accordingly argue that it is indestructible and immortal: When the inner phenomena of mental life come to an end, it (the soul) will also come to an end. It is also no more certainly real than the external bodies we see around us in space. These, phenomenally speaking, are streams of interconnected appearances and so are we. What either we or they are in themselves (ourselves) cannot possibly be known and is, therefore, a non-intuitive, empty, transcendental Idea. We may note that Kant's argument extends as much as to any simple substance that may be posited as underlying external things in space: Of these too we can only form an empty transcendental Idea.

2. From the transcendental Idea of the Soul or other simple substance Kant proceeds to the transcendental Idea of a wholly complete COSMOS OR WORLD, of which all that is given in experience is only a fragment. This transcendental Idea, though remaining in part within the phenomenal order, goes beyond it in demanding a completion and exhaustion of conditions which is empirically unachievable. In doing so, it involves itself in antinomies, assertions which contradict one another, but both of which seem to follow from the sort of exhaustive conditions we are attempting. Kant argues that there are four and only four such antinomies, which he based on the four groups of his fundamental categories.

The First Antinomy argues that, if conditioning is complete, there must be outer limits to phenomena in Space and initial beginnings to phenomena in Time: If this is not the case we shall never have a complete all-inclusive world. But it also argues that there cannot be any limits or beginnings in space and time, since our intuitions always look to further spaces and times beyond any such limits or beginnings. It follows that there never can be any complete, all-inclusive spatiotemporal world.

The Second Antinomy argues, on the one hand, that all complexity must build upon elements which are simple and cannot melt away indefinitely to nothing at all, but on the other hand, it argues there cannot be any wholly simple existences in Space and Time since our intuitions necessarily posit further divisions in



anything spatial or temporal, to remove which would be to destroy space and come altogether and so to transcend experience.

The Third Antinomy involves the category of Cause and Effect and argues on the one hand, that causal conditioning cannot go back indefinitely as those would involve that nothing has ever completely conditioned: There must, therefore, be spontaneous beginnings of event series for which no prior conditions can or need be assigned. But on the other hand, it also argues that such unexplained spontaneity is wholly un-understandable and we must therefore postulate a cause for each effect even if the series can never be completed. This antinomy, not arbitrarily invented but founded in the nature of human reason, and hence unavoidable and never ceasing, contains the following four theses together with their antitheses:

1

*Thesis:* The world has, as to time and space, a beginning (limit).

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

2

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

*Antithesis:* There is nothing simple, but everything is composite.

3

*Thesis:* There are in the world causes through freedom.

*Antithesis:* There is no freedom, but all is nature.

4

*Thesis:* In the series of world-causes there is some necessary being.

*Antithesis:* There is nothing necessary in the world, but in this series all is contingent.

The Fourth Antinomy works with the categories of the Contingent (what could possibly not be) and the Necessary, and argues that there must be in the world some irremovably necessary factor or element in terms of which everything else can receive conditioning or explanation. But on the other hand, nothing which claims necessity of existence can be an object of experience: The phenomenal things we experience are all such that they might not have existed.

Kant says that these Antinomies are all resolved if one remembers the distinction between phenomena and noumena and the restriction of all knowledge to what is phenomenal. In the phenomenal world there can be no absolute limits on beginnings and no simples which end all division: One can always go further and further in the extension and division of space and time. In the realm of noumena or things in themselves, there may be wholly simple substances which underlie interconnected phenomena in space and mental representations bound together in time, but of these we can have no knowledge whatsoever. In the same way the noumenal world, exempted from the piecemeal running through one state or thing

after another, may well be an infinite or a finite whole, but our phenomenal world is always essentially incomplete and going on to further and further conditions.

If we now turn to the causal conditioning of cosmic states, it may be in the realm of things in themselves, where there is no time, involves spontaneously initiated existences, but in the phenomenal world there is no room for such spontaneous freedom. Kant argues that while a man's phenomenal acts are always fully determined by prior causes, and so not apparently free in the sense required for moral praise and blame, they may yet be free from a noumenal standpoint: We may, by a noumenal act which occurs out of time, have chosen wholly out way of life in one fell swoop and so may be, in part, the author of what we do. Morality in fact forces us to assert that such noumenal freedom exists, even though we can give the concept of it no intuitive meaning and can therefore have no knowledge that it exists. In the same way, while the concept of a being that exists of necessity is quite inapplicable to the phenomenal world, and such a being cannot be proved to exist, it may, nonetheless, be the case that such a being exists noumenally as a thing in itself and that we can and must form a concept of it, though we can have no knowledge of it.

3. In the concluding chapter of the *Prolegomena*, Kant deals with the problems of the limitation of knowledge. He says it would be absurd to try to apply our intuitive forms and categories to things in themselves, but that it would be even more absurd to try to dispense with things in themselves altogether, for they may be the objects of an intuitive understanding which does not apply concepts to intuitions as does ours. And it is neither possible nor desirable to refrain from raising questions in regard to this, for example, to the soul as it may be in itself, even though we cannot hope to answer such questions. The same applies to cosmological questions regarding the duration of the cosmos (as well as its magnitude) and the freedom or necessity of all that takes place in it. Natural science in its advance can never hope to reveal to us the inner constitution of things, and we experience a deep and rational need to frame problematic assertions regarding things in themselves even though we can never hope to confirm or refute them (at least in this life).

Reason cannot help positing the reality of an intelligible world of simple substances which underlie and are causally active in outer and inner appearances, and of a supreme, necessary substance on which their existence depends, even though we cannot clearly conceive or know what we are positing.

Kant then devoted particular attention to the THEOLOGICAL IDEA or conception of God, and distinguishes a deistic conception, which thinks of the supreme cause in a wholly abstract, indeterminate fashion; and a theistic conception, which does not hesitate to employ anthropomorphic analogies, treating God as if he were an artificer, an intelligent and loving being, even though we know that the sense in which these things may be true of a noumenal substance differs

completely from the sense in which they might be true of beings like ourselves. Kant goes on to contend, finally, that the transcendental Idea of God (and the other transcendental Ideas) has an important moral role. The Idea of the simple, thinking Soul at least guards against materialism which has bad ethical consequences, the cosmological Idea guards against simple Naturalism and makes us aware that nature has a deeper ground, whereas the theological Idea places intelligence and beneficence at the root of the world, and so makes us hope to know the world better and to improve ourselves and achieve final happiness.

### CRITIQUE OF KANT

Kant may be held to have made a great contribution to Philosophy in his doctrine of the *a priori*, with his three major divisions (1) *a priori* intuitions, (2) *a priori* concepts, and (3) *a priori* principles. It seems clear that we perceive all that we perceive as located in a space which stretches forth infinitely beyond what is given in perception in three dimensions, which is imagined as being there whether occupied or unoccupied by sensuous contents, which is wholly continuous and which cannot be imagined as containing anything which is unextended so that all its parts are always further divisible. It seems clear that it is because we locate all perceived things in this all-inclusive framework that we are able to build up an empirical conception of things in space. Without the framework, we should have only fragmentary spatial experiences which would not lead us to piece them together in a continuous spatial picture. The same applies to our imagination of Time as stretching on indefinitely beyond the present into a definite past and the as yet unknown future and as capable of sustaining a continuous flow of contents which proceed from the future through the present and into the past. Both of these frameworks are plainly brought by the conscious individual to the perceptual envisagement of the world which without them he would not be able to unravel and piece together at all. And both frameworks have a structure which reveals itself in geometrical and time constructions and which can be worked out in definitions, axioms, and demonstrations.

There is, however, no cogent need to suppose that because we bring these structures to our envisagement of the world they are not also present in the world, that there is in fact a built-in harmony between the way we envisage things and that way things are. We may in fact have an advance vision of cosmic spatiotemporality in which empirical data naturally fit themselves, because it is from such an overall structure that they actually derive. One of Kant's contemporaries, Crusius, actually held to the notion of such a pre-established harmony between our basic ideas and persuasions and the structure of things as they are in themselves. Kant, however, rejected this notion as not providing the certainty which his theory demanded. It is of course not necessary to hold that the Space and Time of

perception is actually like the Space and Time of Nature in itself—modern physics thinks there are certain differences—but there will nonetheless be certain coincidences. Kant's arguments in the Antinomies do not prove the contradictory nature of our notions of Space and Time: Infinity and infinite divisibility are less hard to conceive consistently than Kant supposed.

If we now turn to *a priori* concepts and *a priori* synthetic principles very much the same arguments hold. Plainly, we do bring certain categorical notions to the interpretation of experience without which we should be unable to make sense of experience at all. We do posit the existence of enduring dynamic centers which reveal themselves in clusters of manifest properties which are characteristics of themselves or which are ready to reveal themselves in appropriate circumstances, all of which involves rules of a high degree of constancy. Wherever we see a cluster of manifest properties regularly going together or regularly recurring in definite circumstances, we attribute them to a substantial "thing" which has a definite nature and definite powers, for example, parcels of water, gold, etc., individual plants and animals, etc. We also look for classes into which such persistent substances can group, give them common names and expect the same behavior from them all. When there are extraordinary and novel changes in the manifestations of such things, we are also disposed to look for dynamic interactions with other things: We expect changes in one regularly behaving substance to be a consequence of changes in another regularly behaving substance which has come into close relation with it, and we formulate causal rules stating that when a substance A is in such and such a state and in close relation with a substance B, the substance B will then change into a such and such a state. The state of substance A will then be the cause of the state in substance B, which is its effect. Thus, lighting a fire under a cauldron of water causes the water in the cauldron to become hotter and hotter till at length it boils and changes into steam. We should obviously not find such causal rules if we did not look for them and if we were not first primed to find them. As things are, a very few cases in which a state A is followed by a state B suffices for us to think it likely that there is a causal nexus between A and B, whereas if we did not bring such a notion to experience infinite repetitions of A followed by B would not need to make us expect B when A appeared. That whatever exists in the world consists of centers of power which are geared into other centers and which operate in a regular manner, to that similar circumstances evoke similar consequences, is a presumption we bring to experience, and without which we should not be able to interpret the world at all. But because we bring this presumption to experience and can formulate it in *a priori* synthetic judgments, it does not follow that what it asserts does not also correspond to and coincide with the actual workings of things: The world may indeed consist of substances with simple natures evoking suitable responses from other substances in regular conditions.

This does not mean that the world as it appears to us is exactly like the structures which underlie such appearances to ourselves, only that there may be considerable coincidence between them. It does not follow that because we interpret the world in certain ways, and are geared so to interpret it, that it may not also be structured more or less as we presume it to be structured. Beings that arise in a world may well arise with an unlearned idea of its fundamental structure. Much the same may be said of our knowledge of ourselves. Undoubtedly, there are aspects of the conscious person which do not directly reveal themselves to introspection and there may be forces and dynamisms in us of which we have no direct consciousness. This is not good reason to hold that there is not an aspect of ourselves which genuinely lives and develops in time and is as we perceive it to be. Kant may well be justified in holding that there are aspects of physical things and aspects of the human person which transcend Space and Time and which cannot be given phenomenally, but this will not affect the fact that phenomenal being is a part of real being even if real being includes other things as well.

Kant's curious solution of the problem of Free Will may also be criticized. He argues that phenomenally, everything is rigorously determined by causal laws since without these there could be no phenomenal objectivity and experience at all. Hence he cannot allow that there can be any spontaneous acts, acts which might have had other acts substituted for them in the realm of phenomena. If I did an evil deed, it had causes which made it inevitable: There is no phenomenal sense to the view that I could have chosen or done otherwise. Only in the noumenal sphere could I have made a timeless choice of the whole of my action over time, and *at that level*, I could have chosen otherwise and am therefore responsible and blameworthy for my evil deed. But it would seem that Kant is too rigorous in his view that there can be no spontaneous self-determination in the phenomenal realm. The world would not fall into a uninterpretable chaos if there were sometimes, or even always, an element of spontaneity in men's actions. Obviously it would be probable and often overwhelmingly probable, that men would act in certain ways, and even when they deviated from such probabilities it would be within narrow limits. Modern science gets on well with an element of indeterminism even in the behavior of electrons.