The Epistemology of Immanuel Kant

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The Epistemology of
Immanuel Kant

A Thesis Submitted to the Honors Program
In Partial Fulfillment of the Requirements for
Bachelor of Arts with Honors
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By David C. Bratz
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"All men by nature desire knowledge."


It has been the tendency of philosophers in the Twentieth Century to examine the philosophy of Immanuel Kant in parcels, by analyzing key Kantian concepts, arguments, and distinctions without relation to the architectonic to which they belong. Thus, for example, large bodies of literature are devoted exclusively to Kant's distinction between analytic and synthetic judgments, to his conception of Categories, and to his argument that existence is not a predicate. The elucidation and employment of isolated Kantian ideas has greatly enhanced many contemporary philosophical theories, particularly in epistemology, and manifests the enormous debt owed Kant by modern thinkers. On this basis alone it is no exaggeration to state that Kant's influence on the development of philosophy is as extensive as that of any philosopher since Plato and Aristotle. But Kant's contribution to philosophical thought should not be restricted to the utility of his ideas distinct from the Critical Philosophy as a whole. Kant's systematic account of human knowledge in the *Critique of Pure Reason*, brilliant if not completely satisfactory, merits attention and criticism in its own right. In the *Critique* Kant forges from ideas unprecedented in the history of philosophy a philosophical edifice which purports both to establish conclusively the validity of scientific knowledge of the sensible world, and to refute just as conclusively claims that reason can provide knowledge of objects beyond the bounds of possible experience. That Kant's success in this endeavor is not complete is neither surprising nor detrimental to the value of his philosophical system. What is surprising is the fresh and unique approach he brings to the problem
of human knowledge, and the nearness which that approach brings him to solving the problem.

Kant's philosophy is best understood as an attempt to reconcile British empiricism with Continental rationalism, Locke and Hume with Descartes and Leibniz. Beginning with Descartes, European philosophers became preoccupied with questions of what knowledge is and how it is obtained. Concurring with the ideas of Descartes, the rationalist philosophers maintained that certain fundamental propositions, for example, that God exists, or that the soul is immortal, can be known a priori through the use of reason, without reference to sense experience. According to the rationalists, such propositions are, or are deduced from, innate ideas or principles, and many rationalist philosophers constructed elaborate deductive philosophical systems a priori on these fundamental principles. On the other hand, the empiricist school, whose philosophy achieved its most consistent formulation with Hume, an older contemporary of Kant's, argued that all knowledge is derived from sense impressions, that the mind without experience is, in Locke's words, a "tabula rasa," possessing no knowledge whatsoever. Kant recognizes fundamental problems with both rationalist and empiricist accounts of knowledge. The empiricist thesis that there is no idea without a corresponding sense impression is, as Hume showed, tantamount to an admission that knowledge of the external world is impossible, a position which, to Kant anyway, is not very satisfying philosophically. The problem with rationalism is nearly the opposite: philosophers who supposed that they had a priori knowledge made such various and often conflicting claims about the content of that knowledge that any claim to a priori knowledge had to be met with skepticism.
Kant is quite unprepared to accept the skeptical conclusions of Humean empiricism as well as the extravagant claims of the rationalist school. That he knows many propositions about the world Kant is not inclined to doubt. His Critical Philosophy is not constructed to prove that he knows, rather to explain how it is possible to know what he knows. But Kant restricts the scope of what he knows, and of what is possible to know, to propositions connected with experience, denying the rationalist thesis that reason alone is capable of obtaining knowledge of objects which could not possibly be experienced, and claiming that all arguments which purport to establish such knowledge through the use of reason unaided by experience involve fundamental logical fallacies. Kant avoids the skepticism of empiricism and the fallacies of rationalism by claiming that a limited number of synthetic propositions can be known a priori, but that such propositions cannot be known without reference to experience. These propositions are known prior to experience because experience itself is impossible without their being true. The fact and nature of human experience verifies the truth of certain propositions about the world a priori.

Kant's idea that all humans possess a priori knowledge of certain propositions which both refer to experience and make experience possible is a novel one in the history of philosophy. It is an admirable, if not completely successful effort to distill out and combine crucial elements of both the rationalist and empiricist traditions into a theory of knowledge which has none of the implausible or unsatisfying consequences of those traditions. In order to make sense of his idea, Kant presents in the Critique an elaborate and lengthy exposition explaining how a particular perceptual and conceptual
apparatus of the human mind, from which can be derived a priori knowledge, is required for humans to have experience at all. Human beings, according to Kant, do and must perceive and conceive the world through specific modes which constitute the subjective forms of experience, and without these forms there could be no content in experience, or at least no knowable content. Kant maintains that through these forms of experience phenomena are organized spatially and temporally by a faculty which he calls "pure intuition," and concepts are categorized according to twelve fundamental concepts, derived from the laws of logic, by the faculty of "pure understanding." Following the outline of the Critique, it is my intention in this paper to explicate the perceptual and conceptual faculties Kant presents, show how Kant derives a priori principles from the relation of the two faculties, and finally, in the last section of the paper, evaluate the significance of the Critical Philosophy to modern philosophical inquiry.

Kant makes a sharp distinction between the faculty of perception and the faculty of intellection, and this distinction serves as the basis for the division of his account of the possibility of experience in the Critique into the "Transcendental Aesthetic" and the "Transcendental Analytic." In the "Aesthetic" Kant argues for the ideality of space and time, maintaining that space and time do not exist in themselves, or at least not necessarily.
Space and time are "pure intuitions," contributed by the perceiver according to Kant, actively projected onto reality as the subjective forms of all appearances. In arguing thus, Kant supports a theory of perception drastically different from traditional theories which consider perception to be the mind's passive reception of the effects of external objects on the senses. For Kant, the forms of perception, space and time, are not received but imposed, and this being the case, space and time have no existence except in the perceptual apparatus of human beings.

To prove that space and time are subjectively imposed forms, and not real existents, Kant presents two types of arguments, "metaphysical" and "transcendental." The metaphysical arguments are based on analyses of the nature of space and time, and the transcendental arguments, which are epistemological in character, are based on the possibility of a priori mathematics. The arguments regarding space and time parallel each other and are, with minor variations, essentially the same. I will therefore, for the sake of brevity, discuss only the arguments intended to prove that space is an a priori form, and of the four metaphysical arguments regarding space, I will discuss only the second, which seems the most convincing. It is as follows:

Space is a necessary a priori representation, which underlies all outer intuitions. We can never represent to ourselves the absence of space, though we can quite well think it empty of objects. It must therefore be regarded as the condition of the possibility of appearances, and not as a determination dependent upon them. It is an a priori representation which necessarily underlies outer appearances.¹

Kant's idea is that space must be a concept based on a priori intuition because it cannot be abstracted from experience in the way a posteriori concepts can. One can abstract virtually all properties in a given perception.
and still imagine that one is perceiving, but one cannot abstract space from any perception because to do so would make perception impossible. Thus, Kant argues, space is not an a priori part of experience, but an a priori condition for the possibility of experience.

The metaphysical arguments may establish that space and time are unique, different from a posteriori concepts abstracted from experience in the sense that there could be no experience except in space and time. To show that experience is possible only in space and time is the object of the metaphysical arguments, but these arguments do not show that space and time are subjective. To prove that space and time are pure intuitions, a priori perceptual forms imposed on reality by the perceiver, Kant relies on transcendental arguments. In the section of the Critique entitled "The Transcendental Exposition of the Concept of Space," Kant argues that space must be subjective because that is the only way to account for the necessity and strict universality of Euclidean geometry. Kant assumes, with Newton, that space is Euclidean, considering that the principles and axioms of Euclidean geometry are synthetic, and are apodeictic in their application to space. Realizing that the necessary truth and universal application in the field of experience of the principles of Euclidean geometry cannot be explained by induction from empirical data, Kant concludes that the apodeictic nature of the principles of geometry is possible only if the perceiver imposes an Euclidean spatial structure onto the world. If, as Kant maintains, it is the nature of the perceiver to experience phenomena in Euclidean space, the principles of Euclidean geometry are a priori and universally valid, because a non-spatial or non-Euclidean perception would be impossible.

Kant's conclusion that human beings, by nature, impose spatial and temporal structure onto the world has some important implications about
the nature of the sensible world. If space and time are but subjective forms of perception, then what is perceived in space and time is not, in a sense, what is really there. Kant must take a position which distinguishes the phenomenal world, the world of appearances in space and time, from the "noumenal" world, a world which is somehow responsible for the empirical content of appearances, but which is fundamentally unknowable because it is not capable of subsumption under the perceptual and conceptual apparatus of the human mind. The perceptual and conceptual forms through which man views the world necessarily limit the field of possible experience, and therefore, in Kant's view, the field of possible knowledge, to that which is in space and time. Since the noumenal world is outside of space and time, it can be neither experienced nor known.

Kant may therefore be termed an idealist. In his view, objects of perception do not exist independently of being perceived because it is only through perception that objects acquire spatial and temporal characteristics. But he thinks his idealism is of a much different sort than that of any of his predecessors. Kant maintains that he is only a "transcendental idealist," since he is also an empirical realist: "We assert, then, the empirical reality of space (and time), as regards all possible ... experience; and yet we also assert (their) transcendental ideality" (72, his italics). By this apparently paradoxical statement Kant means to distinguish his view from other idealisms, for example that of Berkeley, which, according to Kant, "regards the things in space as merely imaginary entities" (244). For Kant space and time are not "merely imaginary," but are empirically real because the common forms through which all humans perceive appearances make those appearances objective. Yet appearances are transcendently ideal
because they are not things in themselves — they do not exist independently of the perceiver. Without the subjective forms there would be no space and time, nor would there be appearances. There would be only the mysterious noumenal world.

Whether or not by positing the forms of experience and distinguishing between phenomena and noumena Kant succeeds in making his idealism any less imaginary than those of his predecessors is a question I will return to in Section V, after considering the conceptual apparatus of the Critical Philosophy. For now, what is important to notice is that in the "Transcendental Aesthetic" Kant has laid the groundwork for and made considerable progress in constructing a theory of human experience which precludes empirical skepticism and shows the claims by rationalists to knowledge beyond the bounds of possible experience to be untenable. By idealizing space and time as subjective forms Kant is able to deduce certain necessary and a priori propositions, for example the principles of Euclidean geometry, which the problem of induction prevents empirical realists from claiming as knowledge. At the same time, the field of perception, restricted to appearances in space and time, will, when combined with a conceptual scheme which is relative only to that field, limit the scope of possible knowledge to propositions about empirical reality and render invalid all rationalist claims to transcendent metaphysical knowledge.

Although a distinction between the faculty of perceptual intuition and the faculty of intellection is crucial to Kant's exposition, it is only
through a combination of both faculties that knowledge is possible. According to Kant, "Intuition and concepts constitute ... the elements of all our knowledge, so that neither concepts without an intuition in some way corresponding to them, nor intuition without concepts, can yield knowledge" (92). In the "Transcendental Aesthetic" Kant has revealed the perceptual side of his account of human experience, but before he can explicate the relation between the perceptual and the conceptual form which knowledge is derived, Kant must consider in detail the nature of the conceptual apparatus involved in this relation. Kant is convinced that, just as there must be pure intuitions basic to human perceptivity, there also must be "pure concepts" basic to the human understanding which, though divorced from all empirical content, provide the form of all experience, and without which there could be neither experience nor knowledge. To the discovery and elucidation of these concepts Kant devotes the section of the Critique entitled "Analytic of Concepts."

Kant finds a "clue" to the discovery of these concepts in Aristotelian logic, thought in Kant's time to be a conclusive and nearly complete system of knowledge. A concept, for Kant, is a "common representation," applicable to a number of particulars, and through which those particulars are related to each other. Concepts are essential to judgments, the objects of logical analysis, because making a judgment requires knowledge of a concept's applicability to a particular, or to another concept. Noting that Aristotelian logic abstracts all content from concept and particular, ascertaining the bare forms of judgments, i.e. the types of relations which "give unity" to the undetermined components of judgments, Kant considers that an analogous "transcendental logic" may be constructed which has "lying before it a manifold of a priori sensibility, presented by transcendental aesthetic,
as material for the concepts of pure understanding" (111). Unlike "general" logic, which is entirely empty of content, this transcendental logic would contain some conceptual "material," namely the concepts of space and time and what is entailed by them, and would be therefore of significant aid in explaining the principles of order in the phenomenal world, though its valid application would be necessarily limited to that world.

At the basis of his framing of the transcendental logic is Kant's conviction that the conceptual forms of experience are somehow correlated to or determined by the logical forms of judgments. According to Kant, "The same function which gives unity to the various representations in a judgment also gives unity to the mere synthesis of various representations in an intuition; and this unity, in its most general expression, we entitle the pure concepts of the understanding" (112, his italics). Kant's conviction is curious, for it is not clear why one should suppose that formal logic could provide a clue for a logic that will account for the conceptual structure of the phenomenal world, but it is also convenient, because in the transcendental logic "there arise precisely the same number of pure concepts of the understanding which apply a priori to the objects of intuition in general, as ... there have been found to be logical functions in all possible judgments" (113). Employing an only slightly modified Aristotelian logic, Kant lists in the "Table of Judgments" twelve forms of judgments, which he believes are the only forms possible, and then, in a corresponding table, lists the twelve pure concepts of the understanding, in what he believes to be an "exhaustive inventory" (113) of the powers of the human understanding. Following Aristotle, Kant calls these pure concepts "Categories," and maintains that the Categories, analogous to the subjective perceptual forms of
space and time, constitute the modes through which man necessarily conceives his world.²

Kant's Table of Categories is almost certainly unsatisfactory. First, even if he could show the validity of deriving the Categories from the logical forms of judgments, his list of the pure concepts of the understanding would be inadequate because since Kant's day the science of logic has progressed to the recognition of many more forms of judgments than Kant was aware of. Indeed, some philosophers argue that the number of such forms is indeterminant, which would entail, given Kant's belief, an indeterminant number of categories as well. Second, Kant's list of categories may be criticized for being too static. That the human conceptual apparatus may evolve, admitting new pure concepts and discarding others, seems at least possible, but such a possibility Kant does not allow. But more important than the inflexibility of the Categories, and their relation to the laws of logic, is the crucial function the Categories play in the Critical Philosophy: why their employment is necessary for human experience to be possible, and how an understanding of them discloses the fundamental fallacies in both rationalism and empiricism. To an examination of these considerations I now turn.

According to Kant, the Categories "are concepts of an object in general, by means of which the intuition of an object is regarded as determined in respect of one of the logical functions of judgment." (128). As concepts of the highest degree of generality, the Categories not only apply to all possible objects of perceptual intuition, but serve to organize and differentiate those objects as well. The understanding is for Kant a set of rules, the most basic of which are the Categories, by which men must conceive the
phenomenal world, and which consequently determine the limits to what men can possibly experience, and coordinate and order that which they do experience. That, for example, the world is organized in terms of cause and effect is, in Kant’s view, a necessary truth determined by the conceptual apparatus of human beings, specifically by the category of causality. Though logically possible since no contradiction is entailed, an uncaused event is nevertheless impossible in the experienced world because the human understanding has ordered reality so that all events are caused. The Categories thus determine fundamental and necessary rules to which phenomenal objects, ie. all objects in space and time, must conform. In contrast to empiricists who must induce nature’s ordering principles from observed phenomena, Kant is able to attribute to such principles the necessity which he thinks they so obviously possess by making them subjective. To Kant, "the understanding is something more than a power of formulating rules through the comparison of appearances; it is itself the lawgiver of nature" (148).

In order to understand the significance of the Categories to the Critical Philosophy, and to ultimately make sense of Kant’s astounding claim that the Categories are necessary for experience to be possible, it is important to remember that for Kant all experience contains both perceptual and conceptual elements. Experience, in Kant, involves both the intuiting of raw phenomenal data in space and time, and the ordering of that data in a way intelligible to the human understanding through the use of concepts. Without the conceptual element, experience, if it could occur at all, would be "merely a blind play of representations, less even than a dream" (139). Kant maintains that perceptual intuition by itself presents one only with a "manifold of intuitions," a chaotic disarray of sense data which, in order
to be considered experience, must be organized, invested with "synthetic unity" through the employment of concepts. The Categories are not, of course, the only concepts capable of synthesizing the manifold of intuitions --- there are empirical concepts, derived from experience, which perform a similar task. But being the most fundamental and general rules to which all experience must conform, the Categories determine the scope of that experience from which the less general empirical concepts are acquired, by imparting synthetic unity on the manifold of all intuitions so that experience is intelligible only through them.

A proper appreciation of the understanding's role in experience requires, according to Kant, that the synthesis of the manifold of intuition be analyzed into three separate, though interdependent stages. Kant maintains that there is "a threefold synthesis which must be found in all knowledge; namely, the apprehension of representations as modifications of the mind in intuitions, their reproduction in imagination, and their recognition in a concept" (130, his italics). The first stage, the "synthesis of apprehension," involves the ordering of an intuition which is "contained in a single moment" (131). Since every intuition contains a manifold of phenomenal data, it is necessary, according to Kant, that insofar as the intuition is to be regarded as a single unified object, the intuition "must first be run through and held together" (131), that is it must be imparted with synthetic unity by the concepts of the understanding.

The synthesis of apprehension is, however, by itself insufficient for the attainment of coherent experience, for such experience requires not only that the intuition of a single moment be "held together," but also that the intuitions of successive moments be connected through concepts. Without
consistent connections according to conceptual rules between the intuitions of successive moments, the passage of time would present to the perceiver an hodge-podge of separate intuitions which, though in themselves quite coherent, would render, for example, persistence through time of even the commonest phenomenal objects beyond the capacity of humans to experience.

Thus, according to Kant, intuitions, as well as being synthesized separately in particular moments, are connected together by reproducing in the imagination the intuitions of previous moments, in a process Kant calls "The Synthesis of Reproduction in Imagination." If one "seeks to draw a line in thought" (133), to use Kant's example, one must be capable of reproducing in imagination the preceding parts of the line in order to achieve an image of the line as a whole. If, on the other hand, a person were always to drop out of thought the preceding representations (the first parts of the line, the antecedent parts of the time period, or the units in the order represented), and did not reproduce them while advancing to those that follow, a complete representation would never be obtained: none of the above-mentioned thoughts, not even the most elementary notions of space and time, could arise (133).

Consistency and continuity in experience are possible, in Kant's view, only through the imagination's reproduction of prior intuitions.

It is important to stress that the synthesis of apprehension in intuition, the synthesis of reproduction in imagination, along with the synthesis of recognition in a concept, are not merely empirical syntheses, that is, they do not merely order phenomenal data received by the senses, but also have a completely a priori employment, because these three stages of synthesis provide the pure (non-empirical) intuitions of space and time with the synthetic unity they require to be objects of experience. This pure and a priori synthesis of the manifold is of the utmost consequence to the Critical Phil-
osophy, because, as will become clear as I explicate the third stage of
the threefold synthesis, that of recognition, Kant maintains that a pure
and a priori synthesis of the manifold in pure intuition according to the
Categories is necessary in order to have consciousness of oneself as a
unitary being persisting through time — a consciousness which in turn
is a prerequisite for the possibility of experience.

The final stage of Kant's threefold synthesis is the "synthesis of
recognition in a concept," a synthesis which involves a person's conscious
recognition of the other two stages. "If we were not conscious that what
we think is the same as what we thought a moment before," Kant maintains,
"all reproduction in the series of representations would be useless" (133).
Though the manifold of intuition has been synthesized through apprehension
and reproduction, there can be no experience, in Kant's view, unless the
individual is conscious of the syntheses his mind performs. Intuitions
need to be reproduced in imagination in order to achieve continuity in
experience, but the manifold cannot attain the unity required for experience
to be possible unless the mind is aware both of what it is, and that it is,
reproducing. Kant imagines himself engaged in the act of counting to ilus-
trate this final stage of synthesis:

If, in counting, I forget that the units, which now
hover before me, have been added to one another in
succession, I should never know that a total is being
produced through this successive addition of unit to
unit, and so would remain ignorant of the number.
For the concept of the number is nothing but the con-
sciousness of this unity of synthesis (134).

The synthesis of the manifold is not complete then, until the mind is aware
of its acts of synthesis, and it is this awareness, attained only in virtue
of the prior acts of synthesis, which constitutes, according to Kant, the concept of the object of synthesis.

The close relation between concepts and the mind’s awareness of its own acts of synthesis is the basis for Kant’s argument in the "Transcendental Deduction of the Pure Concepts of the Understanding" that the mere consciousness of oneself as a unitary being entails the existence and valid application of the Categories. According to Kant, the consciousness involved in the synthesis of recognition entails a unity of the conscious self, because the acts of synthesis recognized must emanate from the same self as the one from which the recognition emanates. When the recognition is a priori, as it is in the understanding’s synthesis of the manifold of pure intuition into the concepts of space and time, the concepts employed in bringing about the synthetic unity recognized must be a priori as well, and not derived from experience, because the experience from which any a posteriori concepts might be derived would fall within the bounds of the as yet unsynthesized concepts of space and time. Neither can the consciousness of self as a unitary being in this a priori recognition depend on the empirical introspection by which one perceives his inner thoughts and feelings since, Kant argues, the concept of time is a formal requirement of such introspection. The units of consciousness essential to the synthesis of the manifold of pure intuition is what Kant calls "transcendental apperception," and is a logical requirement which can tell us nothing about the self a priori except that it is single and unified.

In the Transcendental Deduction Kant attempts to show from the fact that transcendental apperception obtains, the Categories may be derived. Apperception, it will be remembered, is logically necessary in order for
validity. Nevertheless, what the Transcendental Deduction may show is that experience requires a unitary consciousness, that a unitary consciousness requires that diverse intuitions be connected together with concepts, and that since an original or initial connection of intuitions presupposes concepts by means of which the connection is attained, there must be certain concepts basic to the human understanding which render experience possible.

If the Deduction does in fact show that there are concepts fundamental to the human understanding, without which experience is impossible, Kant has done a great deal to reconcile the tenets of rationalism and empiricism into an epistemology which retains the strengths of both schools, while banishing some of their more disturbing consequences. With the rationalists Kant agrees about the legitimacy of a priori concepts, because, he maintains, certain such concepts must be presupposed for there to be experience. But unlike the rationalists, Kant holds that these concepts, in constituting the bounds of possible experience, have valid application only within those bounds, and that any employment of these concepts to attain knowledge which transcends the limits of possible experience is spurious. Indeed, Kant devotes over one third of the Critique, an entire section entitled the "Transcendental Dialectic," to showing the fallacies of applying the Categories to objects outside of possible experience, criticizing, for example, the traditional arguments for the existence of God as depending on invalid applications of the Categories. For Kant, it must be stressed, experience, and therefore knowledge, requires a perceptual as well as a conceptual element, and any claim to knowledge which disregards either of these two elements is little more than deception. According to Kant,
"our pure concepts of the understanding as well as our pure intuitions extend to nothing but objects of possible experience, consequently to mere things of sense, and as soon as we leave this sphere, these concepts retain no meaning whatsoever."  

By restricting the scope of knowledge to the "mere things of sense," Kant manifests his affinity to the empiricist school, and his interest in setting firm foundations for empirical investigation of the phenomenal world. Kant realizes that for empiricism to get off the ground, to glean any knowledge at all from the external world, certain conceptual presuppositions must be made which cannot be proven empirically. Without such presuppositions the empiricist will inevitably follow Hume down the road to complete skepticism with regard to knowledge, and will be, in the end, unable to provide justification for the basic principles upon which science proceeds. Kant's endeavor in the Critique of Pure Reason can be seen as an attempt to show that the a priori assumptions of science are valid ones, and this he does by showing that without the subjective forms of pure intuition, space and time, and without the pure concepts of the understanding, the Categories, there could be no experience to investigate empirically. By accounting for the possibility of experience, Kant fixes the principles whereby experience can be known. Kant, I think, is an empiricist who understands that empiricism is untenable without a small dose of rationalism.
The Categories are the forms through which humans necessarily conceive the world, but these forms, derived as they are from the laws of logic, are abstractions of the highest degree of generality, void of any sensible content, and completely isolated from any instances in perception to which they apply. In order to account for the possibility of knowledge, Kant thinks that a connection between these pure abstractions and the phenomena of sense must be established, that the scope and nature of each category's reference must be determined. Knowledge, for Kant, involves the making of true judgments, and to make a true judgment, it will be remembered, requires that one correctly apply a concept to a particular. The application of an empirical concept to a particular phenomenal object presents little theoretical difficulty since the rules of reference for an empirical concept are determined by the phenomena from which the concept is abstracted. Kant sees a problem, however, in determining the objects to which categorical concepts refer, because, unlike empirical concepts, the Categories are a priori and original, not derived from a body of particulars which would serve to delineate the sorts of things they encompass. Lacking the built-in reference which empirical concepts possess, the Categories, Kant recognizes, are in danger of having no reference at all.

In his chapter on "Schematism" Kant confronts this danger by attempting to show how the various categories can refer to particular aspects of the phenomenal world. Acknowledging that the "pure concepts of understanding (are) quite heterogeneous from empirical intuitions" (180), Kant reasons that for the Categories to have "significance" to the data of perception, something must be interposed between the Categories and intuition, similar
in some respects to both, and through which the two are connected.

"Obviously," states Kant, there must be some third thing, which is homogeneous on the one hand with the category, and on the other with the appearance, and which thus makes the application of the former to the latter possible. This mediating representation must be pure, that is, void of all empirical content, and yet at the same time, while it must be in one respect intellectual, it must in another be sensible. Such a representation is the *transcendental schema* (181, his italics).

The transcendental schema, then, provides the medium through which the pure concepts of understanding are joined to perception, thereby giving the categories reference and concrete meaning in the sensible world.

Kant argues that "an application of the category to appearances becomes possible by means of the transcendental determination of time" (181), that is, by means of a synthesis of the manifold of pure intuition into the concept of time. Such a determination is "homogeneous with the category" (181) through its dependence on the category for synthetic unity, and "homogeneous with appearance, in that time is contained in every empirical representation of the manifold" (181). For Kant, time, through its dependence on the Categories for coherence as a concept, and through its necessity as a concept for ordering the manifold of intuition, is an essential part of the schematic link between the Categories and perception. In providing this link, and thus securing a reference in intuition for pure concepts, the transcendental determination of time also imposes an inexorable limit on the meaningful application of the Categories. Granted a concrete significance by time, the Categories can be applied meaningfully only in time, and are therefore of aid in gaining knowledge solely in the phenomenal world, and are incapable of contributing
to knowledge of the noumenal world, the world beyond the subjectively imposed forms of space and time.

But there is more to a transcendental schema than the concept of time, for although the heterogeneous offspring of understanding and intuition are connected through it, time, in itself, does not provide the unique meaning of individual categories. For a schematic exhibition of the reference of each category in its individuality, Kant calls in the faculty of imagination, and here he is at his most obscure. Kant maintains that the imagination produces a single a priori "representation" for each category by "an act concealed in the depths of the human soul" (183). This mysteriously generated representation, the schema, defines a determinate body of possible appearances capable of subsumption under a category. In producing a schema the imagination restricts the scope of a category's application, and at the same time gives the category a distinct and useful interpretation, by providing an a priori representation of the category's significance in the phenomenal world. But this representation the schema of a category, "can never be brought into any image" (183), since, though it is not as indefinite as the category, it must, in its generality, encompass a number of appearances and images, all of which could not possibly be subsumed under a single image. Kant, however, not only finds the production of a schema mysterious, but he apparently finds the very nature of a schema mysterious as well. Only three pages after he denies that a schema can be a specific image, he states that "(T)he schema is, properly, only the phenomenon, or sensible concept, of an object in agreement with the category" (186), plainly implying, contrary to his above assertions, that the schema of a category differs according to the particular phenomenon to which the category is applied.
Kant is correct to recognize, in his "Schematism" chapter, a problem in fixing a meaningful application for the Categories in the phenomenal world, for it is not easy to see how pure concepts, generated by the mind and in no way derived from or dependent on the senses, can have reference to a determinate type of phenomena. Kant is also correct to recognize that such an application must be fixed for the Categories to be of any aid in gaining knowledge of the world in the form of judgments. But aside from the vague notion that a schema "mediates" between category and perception, Kant fails to solve the problem of schematism. He fails to show how it is possible that each category has a phenomenal reference. Instead of worrying about being "further delayed by a dry and tedious analysis" (183), Kant would have done well, I think, to have dealt with the problem of schematism in greater depth, and to have subjected the problem to the same insightful scrutiny he employs throughout most of the Critique with such remarkable results.

Assuming, with Kant, that the problem of schematism has been solved, however, Kant has now provided all the requisite tools for making synthetic judgments a priori. He has explained the formal characteristics of the phenomenal world in the "Transcendental Aesthetic," demonstrated the existence of pure a priori concepts in the Transcendental Deduction, and connected these concepts to the phenomenal world by showing "the sensible condition under which alone the pure concepts of understanding can be employed" (179) in the "schematism." Having fulfilled these requirements, Kant's "task now is to exhibit, in systematic connection, the judgments which understanding... actually achieves a priori" (188). Kant thus proceeds to derive from the schematized Categories nine synthetic judgments, which he calls the "princi-
pies of pure understanding," in sections of the Critique entitled "Axioms of Intuitions," "Anticipations of Perception," "Analogies of Experience," and "Postulates of Empirical Thought." These principles, which include, for example, the principle of Permanence of Substance and the principle of Universal Causation, are, in their derivation from the Categories, both "the a priori principles of possible experience," and "at the same time universal laws of nature." They are, in Kant's view, the necessary rules, in the form of judgments, to which all experience must conform if there is to be experience at all. It is beyond the scope of this paper to examine in detail Kant's derivation of the principles of pure understanding. Suffice it to say that just as the pure concepts of understanding are required for experience to be possible, the principles are required for knowledge of that experience to be possible. The principles constitute the a priori judgments which, in Kant's view, must be presupposed in order to account for the possibility of making any synthetic judgments whatsoever, since "they contain in themselves the grounds of other judgments" (188).

Kant's philosophy brings a unique perspective to the theory of knowledge. Rather than asking how it is that we can know principles like, for example, "all events have causes," Kant asks what would happen if we didn't know them. If we didn't possess a priori concepts, Kant maintains, experience would be impossible. Since we have experience, Kant reasons, we must possess a priori
concepts. Likewise, Kant argues that if we didn't have knowledge of a priori principles, we could have no knowledge whatsoever. But the fact that we do have knowledge proves, in Kant's view, that we know certain principles a priori. Unlike empiricists who attempt to show that the basic principles of human knowledge, what Kant calls the principles of pure understanding, are a posteriori inductions from perceived phenomena, and unlike rationalists who attempt to show that the employment of pure reason can establish such principles a priori, Kant attempts to show that the validity of the principles of pure understanding rests on the question of how knowledge is possible, and therefore, ultimately, on the question of how experience is possible. For Kant, the truth of a priori principles is proven neither by empirical induction nor by logical deduction, but by the alleged fact that without such principles knowledge would be impossible.

Thus Kant approaches the theory of knowledge from a perspective much different than the perspectives of rationalists and empiricists. But the result of Kant's approach may be seen as a marriage of the two doctrines. By positing space and time as subjective forms of intuition, instead of objective characteristics of the external world, by establishing the human understanding's necessary possession of a priori concepts, and by deriving a priori principles from showing the application of a priori concepts to the world of space and time, Kant is able to maintain with the empiricist that "all our knowledge begins with experience" (41), and with the rationalist that human beings can know synthetic a priori propositions. All knowledge, according to Kant, is relative to possible experience, that is to phenomena in space and time, but certain a priori concepts must be recognized, and certain a priori principles must be known, in order to account
for what Kant takes to be the obvious fact that we have knowledge of the world. Looking at the theory of knowledge from a unique point of view, Kant brings about a reconciliation of the two traditional theories of knowledge, rationalism and empiricism, which provides firm support to claims to knowledge of the phenomenal world, and which undermines claims to knowledge of objects beyond possible experience.

Kant's approach to the theory of knowledge from the standpoint of explaining the possibility of experience and the possibility of knowledge, and the results he derives from this approach, merits the attention of philosophers both because of the uniqueness of his approach, and because the results he derives are in accord with common notions of the kinds of things that can be known, and the kinds of things that cannot be known. In ensuring the validity of knowledge gleaned from scientific investigation — a validity which, Kant feared, was seriously threatened by the philosophy of David Hume — the Critical Philosophy supports the intellectual basis on which Western thought depends. In questioning the validity of knowledge which transcends experience, Kant sustains the view of those who consider, for example, questions about the existence of God and the immortality of the human soul beyond the realm of human knowledge, and more properly in the realm of faith. I hesitate to call this position of Kant's the "common-sense notion" of the powers and limits of knowledge, because I am not sure that sense can be made of "commonsense notion," but I do think it safe to say that Kant's position is in accord with the view of many people, philosophers and non-philosophers alike, that in general objects of experience are objects of knowledge, and objects which could not possibly be experienced are not objects of knowledge. I also think that for this reason, and for the reason that Kant's position avoids the problem of too little
knowledge that can be gained from a consistent application of the principles of empiricism, and the problem of too much knowledge that can be derived from the principles of rationalism, Kant's approach to the theory of knowledge rewards serious study.

Kant's theory of knowledge would be, of course, an incredible feat were it without flaws, which, unfortunately, it is not. Kant, I think, no more than Berkeley whom he criticizes, can regard objects in space as more than "imaginary entities." Objects in space and time, for Kant, have spatial and temporal characteristics only when they are perceived, because only then are the subjective forms of space and time imposed upon them. The unperceived object in Kant, as in Berkeley, cannot exist, or at least it cannot maintain its status as an object, the least that can be meant by which is a thing with spatial characteristics that persists through time. If I turn away from looking at my book, for example, my book, according to Kant's principles, must cease to exist as a book, for it loses all the properties familiar to it, e.g. having a soft cover, having small print, having a given number of pages, because all those properties depend on my book having spatial and temporal characteristics, which it ceases to have as soon as it ceases to be perceived. Whether the status of unperceived objects is a fatal flaw in Kant's philosophy I would not venture to say. It may well be, and it seems impossible to determine, that objects have no status qua object when they are not perceived. I would say, however, that Kant's idealism cannot be distinguished from Berkeley's idealism nearly as sharply as Kant thinks it can.

A more serious problem for Kant than the status of unperceived objects, however, is the crucial importance of the noumena to his system. Space and time and the Categories provide, according to Kant, only the forms of experience. They organize the manifold of intuition in ways intelligible to the
human understanding, but they do not account for the presence of the manifold. What causes the manifold of intuition, the contents of appearances as opposed to their form, is a question which runs Kant into great difficulties. It is clear that, for Kant, the subjective constitution of the human mind is not responsible for the manifold of intuition, and while, for good reason, he avoids saying so explicitly, it is also clear that Kant thinks the content of appearances is caused by noumena. Indeed, short of claiming that the manifold of intuition is uncaused, Kant has little alternative than to attribute a causal role to noumena. If the existence of the manifold of intuition does not arise from the human mind, then that from which the manifold does arise must exist independently of the forms imposed on the world by the mind, independently of space and time and the Categories --- it must, in short, be noumenal. But in attributing existence and causality to noumenal objects Kant contradicts his own basic principle that the Categories are applicable only to phenomena. Kant is able to distinguish his idealism from Berkeley's dictum, "existence is perception," only insofar as he attributes existence to the noumenal causes of appearances independently of the perception of those appearances, an attribution which violates one of the most basic principles of the Critical Philosophy by applying the category of Existence to something outside of the phenomenal world. That noumena exist as causal agents is, I think, at once crucial to Kant's system and contradictory of the principles of that system.

The role of noumena in Kant is not limited to causing the content of appearances, however. The existence of a noumenal world is also crucial to Kant's views on the problems of God, freedom, and immortality, problems which for Kant are the most important faced by philosophy. It is Kant's conviction,
for example, that man is a free moral agent, but it is also his conviction that human freedom and universal causation are mutually exclusive. Since the principle of universal causation is true in the phenomenal world, it follows, Kant reasons, that freedom cannot exist unless there are some human actions which are prompted by the noumenal self, the unknowable self beyond space and time, the self which is not constrained by universal causation. Similarly, Kant employs the concept of noumena to justify his beliefs in God and the immortality of the soul. Although Kant's use of the concept of noumena contradicts his own principles, his views on important philosophical questions, perhaps even the theory of knowledge presented in the *Critique of Pure Reason*, would be impossible without such a use.

Kant confesses that "my recollection of David Hume was the very thing which... first interrupted my dogmatic slumber and gave my investigations in the field of speculative philosophy a quite new direction." The skeptical threat to his previous convictions forced Kant to reevaluate his position, and prompted the birth of the Critical Philosophy, a philosophy that he thought was a final and conclusive refutation of epistemological skepticism. A refutation of skepticism Kant's philosophy is not, for it is no less open to skeptical doubts than other theories of knowledge, but it is an admirable and ingenious attempt to explain the possibility of knowledge, an attempt for which generations of philosophers have been and will be indebted to Kant. Kant's anxiety over the compelling arguments of Humean skepticism, and his tenacious endeavor that his convictions could be rationally justified, led to one of the most brilliant, if also one of the most obscure, contributions to the history of philosophy.
I conclude my paper with a poem by D.H. Monro which seems to capture concisely the essence of Kant's philosophy:

When Kant, aroused from his dogmatic dozes
And conscious of the very little room
For anti-skepticism left by Hume,
Decided that the intellect discloses,
Not what's out there, as everyone supposes,
But only what it finds it can subsume
Beneath the Categories (I assume
That they're like spectacles upon our noses)
He added that this blinkered human'll
Catch still some glimpses of the Noumenal
And that God, Freedom, Immortality
Are hall-marked: Guaranteed Reality
This simply shows what tangled webs we weave
When we are quite determined to believe.⑨
1. Immanuel Kant, *Critique of Pure Reason*, trans. Norman Kemp Smith, (New York: St. Martin's Press, 1965), P. 68. All subsequent references to the *Critique* will be in parentheses following the quotation.

2. Kant divides the twelve pure concepts of understanding into four distinct types: of Quantity, of Quality, of Relation, and of Modality. The categories of Quantity include Unity, Plurality, and Totality; those of Quality are Reality, Negation, and Limitation; those of Relation are of Inherence and Subsistence, of Causality and Dependence, and of Community; and the categories of Modality are Possibility-Impossibility, Existence-Non-Existence, and Necessity-Contingency.


4. "In all change of appearances substance is permanent; its quantum in nature is neither increased nor diminished" (*Critique*, P. 212).

5. "All alterations take place in conformity with the law of the connection of cause and effect" (*Critique*, P. 218).


7. Consider, for example, this passage: "The sensibility (and its field that of appearances) is itself limited by the understanding in such a fashion that it does not have to do with things in themselves but only with the mode which, owing to our subjective constitution, they appear" (*Critique*, P. 269, my italics). One can find in Kant numerous passages like this one, where Kant carefully avoids saying explicitly that the noumena cause appearances, but where, in talking about the mode in which things in themselves (i.e. noumena) appear, Kant leaves little doubt that he thinks noumena cause the manifold of intuition.


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