KANT'S ANALYSIS OF EXPERIENCE--THEN AND NOW

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by

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To

My Mother and Father

with

Love
ABSTRACT

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David Hume's analysis of experience is presented as set forth in his Treatise of Human Nature, followed by Immanuel Kant's analysis of experience as developed in his Critique of Pure Reason, with the explicit intention of showing how Kant's critique revealed inherent flaws in Hume's analysis. The insights gained from Kant's analysis are further employed in analyzing some of the arguments proposed by present-day challengers of contemporary empiricism.
INTRODUCTION

The general notion of what it is that we experience appears to have been shared throughout the history of western civilization. We read of the pyramids of Egypt, works of art from Greece and Rome, wars between nations with their victories and defeats, stories of love, hate, jealousy, and greed. We seem to have no difficulty in comprehending these descriptions of objects, events, attitudes, etc., all of which are experienced. When we look at the attempts made to analyze just what experience itself is, however, we discover as wide a range of theories as are the colors of the spectrum.

In this paper I first describe David Hume's analysis of experience; I then offer Immanuel Kant's criticism of this analysis, with the intention of emphasizing his claim that certain necessary conditions must prevail for there to be experience at all—a fact which Hume did not carefully investigate; and, finally, I offer a description of the challenges directed at empiricists today, in order to show that Kant's analysis presented a challenge to Hume which can be correlated to the charges presently being made. And, further, because Kant's investigation was on a transcendental level rather than an empirical one, his analysis may still act as a valuable guide in directing contemporary critics in their search for a well-founded argument against this Humean-type of empirical position.
A close examination of David Hume's *A Treatise of Human Nature* shows that experience was, for him, a brute fact, the groundwork upon which our structure of ideas and beliefs is built. His aim was to analyze the development of this superstructure using sense impressions as the sole foundation. Through the investigation of his analysis I propose to show that not only are his conclusions false but, further, that his argument is unsound due to his mistaken assumption that sense impressions are the sole basis for experience. These findings will be, of course, substantiated by the conclusions Kant reached in his critique.

Hume opened the *Treatise* with an account of what he called the components of experience. "Perception" is the general title he offered for these components. He claimed that all perceptions resolve themselves into two distinct kinds, impressions and ideas. The difference between the two consists only in the degrees of force and viveliness with which they strike upon the mind. The impressions are those which enter with most force and vivacity, and under this heading are sensations, passions, and emotions. Ideas are faint images of impressions. Impressions and ideas are further divided into the simple and the complex. Simple impressions and ideas are such as admit of no distinction or separation. The complex, on the other hand, may be distinguished into parts. To exemplify a complex idea, Hume used the notion of an apple in which a particular color, taste, smell (i.e. simple ideas)
are qualities united, yet obviously distinguishable from each other. It was Hume's claim that simple ideas are exact copies of simple impressions since both admit of no separation. The same principle, however, does not hold true for complex impressions and ideas. In many instances the latter two resemble each other. However, since simple ideas may be separated and combined again by the imagination in various forms, it follows that simple ideas may be combined into complex ideas which have no corresponding complex impressions. Hume claimed that there is nothing more free than this faculty of imagination which separates and combines, although, as he stated:

Nothing wou'd be more unaccountable than the operations of that faculty, were it not guided by some universal principles, which render it, in some measure, uniform with itself in all time and places. ¹

Whether this faculty is free or restricted to universal principles, a point we will question later, these complex ideas are nevertheless combinations of simple ideas. Hence, even these complex ideas are ultimately derived from simple impressions. Hume arrived at the conclusion that "all our simple ideas in their first appearance are deriv'd from simple impressions, which are correspondent to them, and which they exactly represent."² Although ideas produce images of themselves in new ideas, all the first ideas are derived³ from impressions, and this Hume established as the first principle in the science of human nature.

These so called simple impressions, i.e. impressions of color, taste, smell, etc., were for him the basic components of experience. This Humean experience is the foundation upon which his ideational structure was built. We shall look at the development of part of that
structure in order to determine its strength and/or weakness. However, if the alleged foundation of the structure can be shown to lack the constituents essential for a foundation, it would follow that the structure, claimed to have been built upon this foundation, must either be deficient or else it rests on a different and more solid groundwork.4

Building upon these basic components, Hume accounted for the generation of a person's structure of beliefs by means of two faculties: the imagination, in which ideas are faint and cannot be preserved for any considerable time, and the memory, which faculty preserves ideas in a much more lively and strong manner and in which ideas seem to be invariable. Hume assumed that the imagination separates and unites simple ideas into complex ones, claiming that it must be guided by some universal principle. This unifying principle, however, is not to be considered as an inseparable connection. Nor should it be concluded that without it two ideas could not be joined. As Hume stated: "Nothing is more free than that faculty [the imagination]; but we are only to regard it as a gentle force, which commonly prevails."5 This "gentle force" he calls association and claims that there are three principles (or "qualities" as Hume called them) from which the association arises. These principles act sometimes singly and sometimes in reinforcement of one another. These three principles are: (1) Resemblance; (2) Contiguity in time and place; and (3) Cause and Effect. Hume felt that it was not necessary to prove that these principles produce an association among ideas. He believed that their effects are everywhere conspicuous. Nor would he speculate on the unknown causes of these principles, but rather acknowledged them as original principles of human nature. In Part III of the Treatise he offered a further
analysis of these principles. He devoted particular attention to the principle of cause and effect, showing it to be foundational in our empirical reasonings. He concluded, however, that it is nothing more than a belief generated through experience.

The results of these principles of union, viz. complex ideas, are divided into the categories of relations, modes, and substances. Of substances as well as modes, Hume claimed that these ideas are nothing but a collection of simple ideas, that are united by the imagination, and have a particular name assigned to them, by which we are able to recall, either to ourselves or others, that collection. Of the ideas of philosophical relations, which Hume placed under seven general headings, we shall analyze only those of time, space, and cause and effect, since a discussion of these should suffice to show that at least certain relations cannot be generated from experience but, as Kant argued, are fundamental for the having of any experience at all.

In dealing with relations of space and time, as well as cause and effect, Hume remained true to his original principle: all ideas are derived from impressions. The idea of space, he stated, is derived from perceiving many visible bodies and, upon considering the distance between them, one acquires the idea of extension. It was his claim, for example, that a table in front of one is sufficient, by its view, to give the idea of extension—that this idea of extension is borrowed from and represents some impression, which at the moment appears to the senses. He stated, however:

My senses convey to me only the impressions of colour'd points, dispos'd in a certain manner. If the eye is sensible of any thing farther, I desire it may be pointed out to me. But if it be impossible to shew any thing farther, we may conclude with certainty, that the idea of extension is nothing but a copy of these colour'd points, and of the manner of their appearance.
In this passage Hume seems to hold a view which is inconsistent with his original dictum regarding the generation of ideas. The idea of space as extension is not a copy merely of the impressions, but somehow derived from the impressions and their manner of appearing. To speak of the manner of appearance is to imply that some relationship exists between the impressions themselves. For example, we would agree that a red ball, in a space to the left of a green ball, appears in a different manner from the appearance of a green ball in a space to the left of a red ball. But Hume claimed that the ideas of relations are derived from the impressions alone. Space, he said, is one of these ideas of relations. In attempting to derive the idea of space, however, he employed the notion of the "manner of appearance" of those impressions, implying an already existing spatial relationship. In so doing, he placed himself in an uncomfortably circular position, presupposing that which he intended to derive. Kant, on the other hand, argued that space, in fact, is a condition necessary for perceiving visual impressions in any manner whatsoever.

With regard to time, Hume claimed that this idea is derived from the succession of our perceptions—of ideas as well as impressions. This is similar to his claim that space is derived from the "manner of appearance" of the impressions. As we saw above, he did not account for the "manner" or "disposition" of the appearance of the impressions. And in the case of time he did not investigate the crucial notion of the "succession" of perceptions and its alleged role in generating the idea of time.\(^8\)

Examining Hume's interpretation of the idea of cause and
effect is important since this is one of the ideas (the existence of substance being the other) which he agreed must be taken for granted in all our empirical reasonings. What he attempted to show was that the idea of necessary connection, which is an integral part of the idea of cause and effect, is nothing more than a belief generated through custom or habit.

Since, for Hume, every idea can ultimately be derived from impressions, he sought that impression which gives rise to the idea of necessity in the cause and effect relationship. First he considered the objects, i.e. the collections of impressions, in which necessity is commonly supposed to lie. Those are objects contiguous in time and place in which one object (known as the cause) precedes another object (called the effect). Reflecting on several instances of two contiguous objects, however, only duplicates the original situation and does not give rise to a new idea. But the repetition, Hume observed, is not in every particular the same. A new impression, and therefore a new idea, is produced. One becomes determined by custom of frequent repetition to consider its usual attendant when the first object is experienced. This determination is the impression which affords the idea of necessity. The determination, however, cannot be found in the objects themselves, i.e. this determination to consider the one object with its usual attendant cannot be perceived in the objects, although the idea of determination is derived from the experience of the multiplicity of resembling instances. Hume concluded that it is the observation of this resemblance which produces a new impression. He claimed that we feel a determination to pass from one object to its usual attendant. Necessity, then, is the effect of this observation
and is nothing but an internal impression or felt determination to carry our thoughts from one object to another. The idea of necessity is merely a feeling in us. He claimed that "this necessary connection is what we can never observe in them [the objects], but must draw the idea of it from what we feel internally in contemplating them." Hume believed that he had shown that this "uniting principle," which is one of our perceptions, is not known to us in any other way than by experience even though he granted that it must be presupposed in all our empirical reasonings.

It was Hume's contention that all statements regarding matters of fact, which statements employ empirical reasoning, are derived solely from impressions (along with their attendant ideas) and the "free" activity of the faculty of imagination. He distinguished these kinds of statements from those concerning relations of ideas, i.e. self-evident principles of thought and statements derivable therefrom. Hume considered the latter statements alone to be produced and restricted by the faculty of reason, that faculty which employs universal and necessary principles. He therefore believed that these statements, which are rational in origin, alone afford certainty based on these universal and necessary principles. Statements regarding matters of fact, on the other hand, are considered by Hume to be nonrational in origin. He believed that they are ultimately derived from impressions, which seem originally to impose themselves upon a perceiver without restriction, and are generated by means of the "free" activity of the faculty of imagination, which faculty Hume claimed is not restricted to any universal or necessary principles. Since Hume's description of matters of fact statements shows that these statements are derived
at least in part from nonnecessary principles, he concluded that these statements are not necessary and, hence, offer no certainty for the empirical beliefs we hold.

Taking this account of experience seriously seems most naturally to lead to the conclusion that for every subject of experience, i.e. every person, there may be a separate and distinct set of beliefs which is private to that person, unshared and unsharable. This position, known as solipsism, results from Hume's first principle (viz. that all first ideas are derived solely from impressions) along with his claim that all complex ideas, which serve as the basis for beliefs regarding matters of fact, are products of the free and unrestricted activity of the imagination. If ideas are derived solely from impressions, and if beliefs regarding matters of fact are generated from these ideas by the free activity of the imagination, then for each recipient of impressions, i.e. for each person, the activity of his unique imagination, which is not restricted to any universal principles, can generate a set of beliefs unique or private to that person.

What began as an investigation of an assumed set of shared beliefs afforded by experience appears to have concluded with unlimited sets of private beliefs. A crucial question now is: How is it possible for beliefs to be shared at all? Or put another way: How is it possible to have experience (in the sense that we understand the term)?

This is a question Kant attempted to answer in his *Critique of Pure Reason*. It was his aim to show that there is objective or public experience (i.e. a unique set of shared beliefs) if, indeed,
there is experience at all. It will be shown in Section III below that this same issue arose in attempting to deal with the tenets of phenomenalism (a modern Humean position of the early 1900's). The conclusions Kant reached were similar, in a sense which will be explicated, to those that the critics of phenomenalism arrived at almost two hundred years later. It will also be shown that Kant's method of investigation (i.e., transcendental analysis) may lead to the justification required to support the position held by the challengers of modern-day empiricism.
In this section I examine Kant's analysis of experience, which analysis results in conclusions antithetical to those of Hume. The broad conclusion reached by Kant is that a conceptual framework, complete with a priori rules for combining impressions in determined ways, must prevail in order to have experience at all.

In the first sentence of the Introduction to the *Critique of Pure Reason* Kant stated: "There can be no doubt that all our knowledge begins with experience." This appears to support Hume's position. In the next paragraph, however, Kant claimed: "But though all our knowledge begins with experience, it does not follow that it all arises out of experience." It is this latter statement that is fundamental in comprehending Kant's challenge to the solipsistic conclusion to which Hume's account led. The *Critique* is an analysis of the faculty of reason and what role, if any, it plays in experience. What Kant intended was not a psychological account of experience, as Hume had attempted, but a demonstration of the conditions that must prevail if there is to be experience at all.

He divided the *Critique* into two parts: (1) the Transcendental Aesthetic, which is concerned with the sensible element in experience; and (2) the Transcendental Logic, which is subdivided into: (a) the Transcendental Analytic, which deals with the rational processes involved in the having of experience; and (b) the Transcendental Dialectic, i.e. the pure reasoning faculty that goes beyond the
limits of experience.\textsuperscript{13} Merely looking at the descriptions of these divisions suggests a fundamental difference between Hume's and Kant's analyses of experience. For Hume, the basic components are sensible impressions, along with ideas as exact but faint copies of those impressions. For Kant, the sensible element is only one aspect; rational processes are also deemed necessary for having experience. In analyzing Kant's account, I propose to show that had Hume been consistent in his analysis, i.e., in maintaining that all beliefs regarding matters of fact derive ultimately from sense impressions which we organize without the employment of rational processes, not only would he not have arrived at his solipsistic conclusions concerning those beliefs, but he would not even have been able to account for those beliefs at all.

Before undertaking the analysis, there are several aspects of the Kantian position that must be explicated. The terms used by Kant are somewhat different from those employed by Hume, and the first task shall be to show how the terms used by Hume are correlated to those Kant employed (and to elucidate some significant distinctions). The second task, prior to the analysis, will be to say a few words about the transcendental method Kant employed for this analysis. Throughout this investigation I shall clarify Kant's transcendental procedure, since one of my aims is to establish that the employment of this method will accord the justification (if any can be accorded) needed by the present-day challengers of empiricism.

Hume divided statements into two mutually exclusive categories: relations of ideas, i.e., truths of logic and statements derivable therefrom, and matters of fact, which deal with empirical statements based on experience. Kant looked at statements from a different
perspective. He spoke of them all as judgments, implying that in every statement there is a connection of two or more separate and distinct ideas. He claimed that judgments are such that "either the predicate B belongs to the subject A, as something which is (covertly) contained in this concept A; or B lies outside the concept A, although it does indeed stand in connection with it." The former are analytic and merely explicative, adding no new knowledge—these correlate with what Hume classified as relations of ideas; the latter are synthetic and ampliative, affording us additional information which was not previously contained in the subject. These correlate with Hume's matters of fact statements. For Hume, the former are products of the faculty of reason affording absolute certainty but making no claims regarding matters of fact. He believed that the statements of the second category, which are generated from experience and not restricted to universal and necessary principles by the faculty of reason, are based on customs and thereby offer no assurance of certainty.

Kant made a division not only between types of judgments, viz. analytic and synthetic, but also between the manner in which we ascertain the truth value of each particular type. This left open the possibility for a third type of judgment. The truth value of analytic judgments, in which the predicate is contained in the concept of the subject, is not determined by experience, but solely by the content of the concepts involved. Therefore, they are necessarily true or false and are independent of experience. This mode of knowing was called "a priori." The truth value of synthetic judgments, on the other hand, seems to be determined solely by experience. The mode of knowing them was called "a posteriori." It seems that all analytic judgments are
a priori since, as explained above, experience can in no way affect such judgments. The criterion for a priori knowledge is strict necessity and universality. But Kant realized that there are two distinct kinds of synthetic judgments, both of which are ampliative. For example: (1) "Ball A's hitting ball B caused ball B's motion" is a synthetic judgment similar to a Humean statement regarding matters of fact, and one which Hume believed to be generated solely from experience (even though it seemed to be attended by an idea of necessity). Kant and Hume were not in disagreement about this kind of judgment having an a posteriori character. It was in their analysis of the idea of necessity that their difference lay.

For Hume, the idea of necessity was based on a "feeling" ultimately derived from the experience of resembling instances of constant conjunction (e.g. Ball A hitting ball B and ball B moving at time $t_0$ . . . again at time $t_1$ . . . again at time $t_2$ . . . etc.). These particular observations, Hume believed, are the sole determinants of the idea of necessary connection which seems to accompany matters of fact statements like (1).

Kant, on the other hand, claimed that the idea of necessary connection which accompanies synthetic judgments a posteriori like (1) is logically prior to these judgments, and must be. He claimed that the idea of necessary connection is asserted in the judgment (2) "Every alteration must have a cause." Judgment (2) is synthetic a priori since the concept of the predicate ("cause") is not contained in the concept of the subject ("alteration"), and yet the judgment is necessary and universal. As he stated:
In the latter case \( \text{[judgment (2)]} \), indeed, the very concept of a cause so manifestly contains the concept of a necessity of connection with an effect and of the strict universality of the rule, that the concept would be altogether lost if we attempted to derive it, as Hume has done, from a repeated association of that which happens with that which precedes, and from a custom of connecting representations, a custom originating in this repeated association, and constituting therefore a merely subjective necessity.15

Particular causal judgments, he maintained, are possible only on the basis of the universal causal maxim\( (2) \). It is from \( (2) \), Kant claimed, that judgments such as \( (1) \) derive their idea of necessity. It was his aim to examine these synthetic judgments a priori and to discover the conditions of their possibility.

Let us now look at the method Kant employed in this examination. Unlike valid deductive arguments in which one starts with a set of premises and derives what necessarily follows, the method Kant used, known as the transcendental argument, starts with a given "fact" and attempts to discover the conditions that must prevail for that "fact" to obtain. The transcendental argument, as Kant makes clear, can be compared to the method of scientific hypothesis. The difference, however, is in the purposes for which each is designed. The scientific hypothesis is proposed in order to discover empirical laws in nature. These laws are discovered through experience and, hence, they are contingent. The transcendental argument concerns itself not with the empirical laws, but with the conditions necessary for the possibility of that experience through which the empirical laws are discovered. It is concerned with the manner in which we experience—not with the objects of experience. Looked at in this way, it seems that the transcendental investigation of the conditions of the possibility of experience is a necessary prerequisite for the justification of any
attempted empirical hypothesis. Without knowing the conditions under which experience is possible, how can one justifiably recommend a theory or hypothesis, i.e., a statement of general laws concerning that experience?

It will be shown, using this transcendental method, the sense in which experience and empirical knowledge are and must be one and the same. Empirical knowledge involves two factors: first, the intuition through which the "manifold" is given, "manifold" being Kant's name for the "pre-ordered" sensible matter of experience. This factor is discussed in the Aesthetic. The second factor, discussed in the Analytic, is the concept through which the "object in general" is thought. For Kant, the concept through which the "object in general" is thought is a rule for combining or synthesizing the manifold so that it is experienceable. The transcendental method is designed to discover the rules or principles of a priori synthesis. The question: "How are synthetic judgments a priori possible?" and the question: "How is experience possible?" are the same question for Kant, since he claimed that it is only by means of certain principles of synthesis, i.e., rules governing our modes of perceiving, knowing, etc., that we can have experience. Therefore, if we can discover these principles we will have also ascertained the necessary rules which make experience possible.

But Hume had claimed that the basic component of experience is the sensible impression, the idea being merely a copy of that impression. A major portion of the Critique, therefore, was aimed at showing that Hume's conception of "impression" is spurious and not able to withstand critical investigation.16
In the Aesthetic, the concern is with the manner in which the manifold is given. The arguments are intended to demonstrate that space and time are what Kant called "forms of sensibility," i.e., the conditions under which alone the manifold can be received. If we start by examining the "given," we discover that it is only through space and time that we can experience at all.

One of the main transcendental arguments advanced to show that space is a form of sensibility is directed against Hume's thesis that the idea of space can be derived from impressions. Kant claimed that some impressions (or "sensations," as he sometimes called them), are somehow thought of as "in space." In order, however, for these impressions to refer to something as "outside me" (i.e., in another region of space from the one I occupy) and, further, that I may be able to represent them as not only different but as being in different places, the representation of space must be presupposed.¹⁷ Several other transcendental arguments (which need not be examined here) allow Kant to conclude that space is not a property derived from impressions, but rather it is a form of sensibility, a subjective condition necessary for intuiting (or perceiving) impressions.¹⁸

Along similar lines, Kant argued that time is the formal a priori condition of all appearances. Space, as the pure form of all outer intuition, is thus limited. Only in time, the form of inner sense, can all representations be ordered. In order to receive one impression as distinct from another of the same character (e.g., two visual impressions), one impression must be either before the other, after the other, or they must be simultaneous. To say, as Hume did, that the idea of time is derived from the succession of impressions
is to overlook the conditions necessary for the reception of any impressions.

Impressions are all subjective, i.e., they belong to a receiver of those impressions. Even if we assume that events, independent of a perceiver, succeed one another, there still is no way to account for the impressions being felt as succeeding one another. Hume's account of the impressions does not account for the awareness of this succession. The receiver must be aware of impressions being received as discrete entities, e.g., red, then blue, then green, etc. The receiver is, in some sense, consciously receiving an impression as a discrete unit and recording it as separate and distinct from another impression which follows it, etc. This ordering process is what Kant called a formal a priori condition of all representations. It is the necessary condition that underlies all intuitions for a subject—time is the conditio sine qua non. It is exclusively a subjective intuited or ordering process.

Time is therefore a purely subjective condition of our (human) intuition (which is always sensible, that is, so far as we are affected by objects), and in itself, apart from the subject, is nothing. Nevertheless, in respect of all appearances, and therefore of all the things which can enter into our experience, it is necessarily objective.¹⁹

This subjective condition of our intuition (time) plays a crucial role, a role which Kant emphasized in the Analytic, in refuting the solipsistic upshot of Hume's analysis of experience. What is necessary to refute a solipsistic position is to show that the "merely" subjective associations of perceptions (Hume's only classification of perceptions) have an objective ground. And this is done by showing that in order for perceptions to enter consciousness they must
necessarily be associated with one another in some manner.

Experience, on Kant's analysis, involves two factors: intuition and concepts. The forms of sensibility or intuition (space and time) are merely modes of receiving the manifold. They are necessary conditions of experience, but they are not sufficient. In the Transcendental Aesthetic, Kant investigated this reception of the manifold. This investigation is one of the factors required for the solution of the general problem of transcendental philosophy, viz. "How are synthetic judgments a priori possible?" In the Transcendental Analytic, the concern is to investigate the mode in which the manifold is thought. The task is to discover the pure (i.e., a priori) concepts of the understanding, otherwise called the categories, without which there would be no thoughts, and to see how they are necessarily connected with the given (i.e., the intuition), for without this necessary connection, thought would be empty and as Kant put it, would have no "objective validity."

Our nature is so constituted that our intuition can never be other than sensible; that is, it contains only the mode in which we are affected by objects. The faculty, on the other hand, which enables us to think the object of sensible intuition is the understanding. To neither of these powers may a preference be given over the other. Without sensibility no object would be given to us, without understanding no object would be thought. Thoughts without content are empty, intuitions without concepts are blind.²⁰

For Hume, on the other hand, impressions impinge on the individual's senses and are, at the same time, recorded as ideas "of the mind." Since for him these are the basic components of experience he saw no need to account for the possibility of these simple ideas. Subjective experience, i.e. what seems to be, caused Hume no problems. His problem was accounting for objective experience, i.e. in showing
how the belief in objects behaving in orderly patterns in a real world is generated. For Hume, the problem was the apparent uniformity of nature. As we saw, his conclusion was that so-called objective experience is a subjective belief, or fiction, generated from impressions and certain psychological "laws of the mind." He saw no way of ascribing necessity or universality to these "laws" and he thereby concluded that there can be no real knowledge of an objective world.

He did, however, recognize some necessary laws of thought. The self-evident truths of logic (i.e., relations of ideas) were acknowledged by him to be universal and necessary. But he also saw that the logical truths are empty of content regarding matters of fact and, therefore, can not be employed to demonstrate the necessary conditions for objective experience. Truth can be ascertained for relations of ideas by deductive reasoning. But Hume saw no way of guaranteeing any of our beliefs about matters of fact. These beliefs, he thought, are arrived at by inductive reasoning, i.e., they are generated from experience, and this mode of reasoning, at best, leads to probable conclusions.

Kant, however, found subjective experience to be as problematic as objective experience. The fact that the senses are impinged upon did not seem to him to account for the ideas generated. As Kant saw it, Hume did not realize that to have a concept (or idea) involves more than merely receiving an impression. It also requires a judgment, i.e., a synthesizing and/or separating of two or more impressions (or representations). For example, to think in terms of red is, in part, to make the judgment "Red is red and not non-red." This judgment is
similar in form to the logical truth "A is A and not non-A." For any impression to be thought of as red it must be categorized as a single representation, separate and distinct from others (which are categorized as non-red). The principle of contradiction, which is the universal condition of all judgments, is likewise a necessary condition for receiving a red impression as an idea of "red."

All thinking, Kant discovered, whether empirical or purely logical, is an act of synthesizing and/or combining. This act, or, as Kant called it, "spontaneity of thought," which requires as a necessary condition the principle of contradiction (a self-evident law of thought), is essential for the production of all "ideas" or concepts. Kant therefore concluded, unlike Hume, that the faculty of reason, which alone employs universal and necessary principles, is essential for the production and restriction of all synthetic as well as analytic judgments.

The examination of empirical concepts led Kant to the discovery of the unifying act of thought.

Concepts rest on functions. By 'function' I mean the unity of the act of bringing various representations under one common representation. Concepts are based on the spontaneity of thought, sensible intuitions on the receptivity of impressions. The understanding is the faculty that by an act of judgment unites a plurality of representations under a single representation. This act of unity (i.e. of judging) is also the act of conceiving. Concepts are the means by which this unifying function is accomplished. This act of unification of various representations under one concept is involved in every judgment, including subjective empirical judgments. For example, "This seems red to me" is a judgment in which a plu-
rality of representations is unified under the concept "red" by a subject. In other words, the person making the judgment has unified (or synthesized) the plurality of representations "having a common mark" under a single concept through his own act of thought.

The problem for Kant, however, still remained as to what confers objective reference in the objective empirical judgment. The difference between an objective empirical judgment and a subjective empirical judgment lies in the following features. First, an objective empirical judgment refers to an object and not merely to a subjective impression. For example, the judgment "The house is red" is the act of unifying two distinct concepts, one of which, "house," has an objective reference which is separate and distinct from the person. Second, an objective empirical judgment, if true, is true for everyone, it is not merely true for the person making the judgment.

Hume tried to show how the objective reference of these judgments were "fictions of the mind" derived from impressions and customs. The problem in Hume's account was that these customs, for the most part, had to be presupposed in order to generate this objective reference. But Hume had failed to show how these customs themselves were derived from impressions.

Kant concluded that objective reference is not simply abstracted from the perceptions. Since it is not derived from impressions, he recognized that it must be a contribution of the objective empirical judgment, i.e., an act of thought. The difference between objective and subjective judgments does not lie merely in the application of the empirical concepts—each concept being only a representation of a plurality of representations. The difference then must lie
in the manner in which the objective judgment further unifies or connects these presentations which are already separately unified in the empirical concepts. There must be a further concept being applied, i.e., a further unifying act; one that is removed from all perceptual content—a pure concept of the understanding.

There are two distinct aspects in every judgment: (1) the application of specific concepts; and (2) the way they are connected in the judgment. General logic deals with (2), the logical form of the judgment, which is abstracted from all empirical content. Since it was shown that we cannot look for pure concepts in the specific concepts (which are a posteriori in nature), Kant's method prescribed looking at the forms of judgment (which are a priori), since each judgment, being an act of unity, manifests a rule for unifying the given manifold in a specific way. He recognized that each different form of judgment is a different way of further unifying empirical concepts. And since concepts are rules for acts of unity (or synthesis), he believed that each different form of judgment is dependent upon a different rule of unity (or category) of the understanding. Therefore, in each of the different ways in which objective empirical judgments confer objectivity on the corresponding perceptual judgment we can discover the category or rule of synthesis that is being employed. So, if we list all the different forms of objective empirical judgments that are possible, we should discover a complete list of the categories.

Kant set up a Table of Judgments listing what he believed to be a complete list of possible objective empirical judgments, and he constructed a corresponding Table of Categories. There is a one-
to-one relationship between the two. Although there has been much controversy regarding this discovery procedure, known as the Meta-physical Deduction, the principle underlying the procedure merits further investigation.

Kant, like Hume, believed that it is impossible to have a priori knowledge of the universal and necessary character of "things," if we suppose these things to be things-in-themselves. But what Hume had not seen is that we can have a priori knowledge by means of the pure concepts or categories (i.e., rules of synthesis), if these categories are due to the nature of the mind and are imposed by the mind (i.e., by a human being) on the objects which it knows.

In the investigation of empirical concepts Kant discovered that these concepts rest on acts of unity, i.e., a synthesizing activity of the understanding. His concern was with the universal and necessary characteristics of the products of these acts of unity, i.e., with the objects of experience. Experience is necessarily a product of intuition and understanding. This is the sense in which Kant claimed that experience and empirical knowledge are one and the same. The claim was that if we know anything as objective, i.e., if we have objective experience (which we do have), it is because we have brought it together by means of an act of unity, i.e., a rule for combining or synthesizing the representations in such a way that they become experience for us.

Kant's concern, then, was to discover these pure concepts of an object in general, viz., the categories of the understanding. A more exact description of a category is: a pure concept of the necessary unity which is present in every object of experience. Kant
felt that Hume had not seen that "the understanding might itself, perhaps, through these concepts, be the author of the experience [empirical knowledge] in which its objects are found." 22

Kant believed he had so far shown only what in fact is the case—that these pure concepts of the understanding do exist. In the Transcendental Deduction and the Schematism which followed the Metaphysical Deduction, he argued for the necessary and legitimate employment of these categories, and he attempted to show how they are connected with the reception of the manifold. We shall look into these two aspects of his theory before evaluating his analysis of the category of Causality, which concept (along with the others) he attempted to show is a necessary condition for objective experience and not, as Hume had claimed, generated from impressions and customs—i.e. that "necessary connexion" is a mere "fiction of the mind."

The problem remained to explain how these concepts of the understanding related to objects universally, that is apart from all conditions of sensibility. How can a priori modes of knowledge necessarily relate to objects, and how, independently of all experience, do they make possible a synthetic knowledge of objects? The problem of the forms of sensibility (i.e. space and time), as actually lying a priori in the mind as the formal ground of the objects, was solved in the Aesthetic, since it was concluded there that only through these forms can objects appear, i.e. be empirically intuited. It must be shown to be the case, however, that a priori concepts also serve as antecedent conditions whereby anything which can be thought as an object in general must conform.

The transcendental deduction is Kant's attempt to show that
these pure concepts of the understanding are the a priori grounds of the possibility of experience. These concepts, if they do exist, cannot contain anything empirical, yet they must serve as the foundation of possible experience. If one seeks to discover how pure concepts of understanding are possible, one must therefore "enquire what are the a priori conditions upon which the possibility of experience rests, and which remains as its underlying grounds when everything empirical is abstracted from appearances."\

The initial things to investigate, then, are the subjective sources, i.e. those conditions contributed by the subject of experience (the person), which form the a priori foundation of the possibility of experience. Since Kant believed he had shown that concepts are the sole means by which an object can be thought (i.e. by unifying representations), then this faculty of representation must be described in order to show the possibility of its relations to objects, that is as the foundation of the possibility of objective experience (empirical knowledge). As Kant stated:

If each representation were completely foreign to every other, standing apart in isolation, no such thing as knowledge would ever arise. For knowledge is [essentially] a whole in which representations stand compared and connected.

This idea of comparing and connecting, or as Kant called it "the combination of the manifold in general," is central to the transcendental deduction of the categories. He claimed that the "combination (conjunctio) of a manifold in general can never come to us through the senses, and cannot, therefore, be already contained in the pure form of sensible intuition." The manifold given in an intuition is nothing but receptivity ('receptivity' being Kant's term
for the mode in which the subject is affected). But combination is an act of spontaneity of the faculty of representation, distinct from the sensibility, which we call the understanding. Therefore, all combination (whether or not we are conscious of it) is an act of the understanding. To this act Kant assigned the general title "synthesis," indicating that we cannot represent to ourselves anything as combined in the object which we have not ourselves previously combined. This is an act of self-activity of the subject. Without this self-activity there can be no thought.

In the first edition of the Critique Kant offered a psychological explanation of the "act of synthesis" in the subject. He distinguished between "apprehension," "reproduction," and "recognition," keeping in view, however, that these are all aspects of the same process. Having reminded us that every intuition takes place in time, since time is an a priori condition of all intuition (see page 18 above), we must realize that "seeing an object" takes place through a duration of time. Yet at every instant we receive separate and distinct sense impressions. The different impressions, however, are apprehended as the same "object." This is only possible if the impressions are combined and held together; that is, it is possible only if the imagination can reproduce the impressions that came before (as coming before), and if these impressions can be recognized as belonging to the same "object" as the present impressions. These aspects must all necessarily be present if an object is to be intuited.

Every intuition contains in itself a manifold which can be represented as a manifold only in so far as the mind distinguishes the
time in the sequence of one impression upon another; for each representation, in so far as it is contained in a single moment, can never be anything but absolute unity. In order that unity of intuition may arise out of this manifold . . . it must first be run through, and held together. This act I name the synthesis of apprehension, because it is directed immediately upon intuition, which does indeed offer a manifold, but a manifold which can never be represented as a manifold, and as contained in a single representation, save in virtue of such a synthesis.

Hume, too, had recognized this uniting and separating activity of the imagination which he called the "law of association." He considered it, however, to be a "gentle force, which commonly prevails" and did not see the necessary connecting link between the intuiting of "objects" (or complex ideas, as he called them) and these qualities of association. It was for Kant to point out the underlying condition without which the "gentle force" or synthesizing activity is inoperative.

To synthesize is, at the very minimum, to combine a succession of impressions as the same representation (or "object"). In order for a subject to hold together these separate impressions, however, he must recognize them as belonging to the same consciousness. They must be recognized as being different, yet unified in the same way, i.e., as all belonging to him. This unity of consciousness must be the underlying condition and thereby the ground for all possible combinations of representations. This underlying unity Kant called the synthetic unity of apperception. He stated:

It must be possible for the 'I think' to accompany all my representations; for otherwise something would be represented in me which could not be thought at all, and that is equivalent to saying that the representation would be impossible, or at least would be nothing to me. That representation which can be given prior to all thought is entitled intuition. All the manifold of intuition has, therefore, a necessary relation to the 'I think' in the same subject in which this manifold is found. But this representation is an act of spontaneity, that is, it cannot be regarded as be-
longing to sensibility. I call it pure apperception . . . or, again, original apperception, because it is that self-consciousness which, while generating the representation 'I think' . . . , cannot itself be accompanied by any further representation. The unity of this apperception I likewise entitle the transcendental unity of self-consciousness, in order to indicate the possibility of a priori knowledge arising from it. For the manifold representations, which are given in an intuition, would not be one and all my representations, if they did not all belong to one self-consciousness. As my representations (even if I am not conscious of them as such) they must conform to the condition under which alone they can stand together in one universal self-consciousness, because otherwise they would not all without exception belong to me.23

In other words, I can be conscious of myself as identical in respect of the manifold of representations that are given to me in an intuition, because I can call them all my representations, and in that way apprehend them as constituting one intuition, which intuition had to be brought about by means of synthesis, i.e. a spontaneous act of the understanding. It is this unity of consciousness which alone constitutes the relation of representations to an object and, therefore, their objective reality. It is upon this first principle, the original synthetic unity of consciousness, that all pure knowledge rests.

The reiteration of what a judgment is follows this pronouncement of the supreme principle of the possibility of experience, for it is essential to Kant's argument to show that all sensible intuitions are subject to the categories as conditions under which alone their manifold can come together in one consciousness. The move is made from the Subjective Deduction to the Objective Deduction.

In opposition to a logician's interpretation of a judgment as the representation of a relation of two concepts, Kant claimed that
a judgment is nothing but the manner in which given modes of knowledge are brought to the objective unity of apperception. This is what is intended by the copula 'is'. It is employed to distinguish the objective unity of given representations from the subjective. It indicates their relation to original apperception, and its necessary unity.\textsuperscript{29}

If we acknowledge with Kant that judgments are the manner in which given modes of knowledge are brought to the objective unity of apperception, and that the categories are the rules by which this function of judgments is performed, then we can see, along with him, that all sensible intuitions are subject to the categories. The argument, paraphrased, runs as follows:

1. The manifold is subject to the synthetic unity of apperception.

2. An act of understanding by which the manifold is brought under one apperception is the logical function of judgment.

3. All the manifold, therefore, is determined (in so far as it is given in a single empirical intuition) in respect of one of the logical functions of judgment.

4. The categories are these functions of judgment.

5. The manifold in a given intuition is necessarily subject to the categories.

It is important to realize the full extent of what Kant attempted to demonstrate: namely that these categories of the understanding are those rules without which there could be no objective experience of a sensible world. It is important to see also that these categories, outside of affording us the possibility of empirical knowledge, have no legitimate application. They act only as limiting conditions, i.e. as rules whereby the manifold can be brought under the unity of apperception in any given intuition. But,
the categories do not afford us any knowledge of things; they
do so only through their possible application to empirical
intuition. In other words, they serve only for the possibility
of empirical knowledge; and such knowledge is what we entitle
experience. Our conclusion is therefore this: the categories,
as yielding knowledge of things, have no kind of application,
save only in regard to things which may be objects of possible
experience. 30

For anything to be objective experience it must be deter-
mined by rules of synthesis. All objective experience, therefore, is
rule-oriented and thus of necessary character. But these rules (the
categories) prescribe only a priori laws, i.e., laws that hold for
empirical knowledge as such. The particular laws of nature cannot be
derived from the categories but must be determined empirically, i.e.,
in conformity with the forms of sensibility. Even though these laws
are not derivable from the categories, they must necessarily be in
agreement with them.

The conclusion for Kant was that the laws of appearances
in nature must agree with the understanding and its a priori
forms. He did not, however, consider this to be a surprising reve-
lation.

For just as appearances do not exist in themselves but only
relatively to the subject in which, so far as it has senses,
they inhere, so the laws do not exist in the appearances but
only relatively to this same being, so far as it has under-
standing. 31

The manifold, upon its reception under the forms of sensibility,
can be unified as objective experience only within the structure of the
rules of synthesis, i.e., the pure concepts of the understanding (the
categories), and only when these rules are in conformity with the
original unity of consciousness. All objective experience, then,
"appears" to a conscious subject necessarily within the bounds of the
intuition and the understanding. Experience of objects in a world is nothing over and above "appearances." This is not to say that objective experience is illusion. To make claims regarding illusion one must have a concept of reality distinct from that of illusion. What Kant was claiming is that the "appearances" are the reality. That is what we mean by reality, empirical knowledge, nature, the world, etc.

Although, as Kant concluded, the laws of appearances in nature must agree with the understanding, and its a priori forms, there remains the problem of how these forms, or categories, which are pure, i.e. without empirical content, can be applicable in the production of empirical knowledge which is sensible in content. There is a distinction in this regard between empirical concepts and the pure concepts. To use a concept means for Kant that something that is intuited is subsumed under it. In the case of empirical concepts there is a "likeness" between the concept and that "object" to which it is applied. The definition of the concept contains empirical determinants. There is no fundamental problem connected with the application of these concepts. In the case of pure concepts, however, there can be no likeness to anything empirical, i.e. nothing in the pure concept is characteristic of the intuition. The pure concepts, or categories, cannot be abstracted from experience, for they are the rules by which experience is determined. But how can this be since there is nothing sensible in their nature? There exists a gap, therefore, between the pure concept and its empirical employment.

In order to close this gap between the sensible and the pure understanding, something is needed which has characteristics belonging to both—something that is both sensible and intellectual. Kant called
this third thing the transcendental schema and concluded that it must be **time**. It is a priori, but it is also a condition for all intuition. As was concluded earlier (on page 18 above): Time is the **conditio sine qua non**—the necessary condition that underlies all intuitions for a subject. Justus Hartnack sums it up clearly in his work on Kant's theory of knowledge:

> Time is thus the element that makes possible the application of the categories to what is intuited. Before a category can be used it must therefore be combined with time. By being subject to the transcendental determination of time, a category becomes a schema and as such can be applied to that which exists in intuition. 

An empirical concept is a rule for knowing or recognizing or imagining the kinds of "objects" of which it is the concept. For example, the concept "horse" is a rule according to which one can, among other things, imagine a four-footed animal with certain other specific characteristics, all of which are subsumed under this concept. However, the schemata of the pure concepts can never be brought into any image whatsoever. Unlike empirical concepts which are rules for forming, among other things, mental images of physical objects, the schemata are the rules that every empirical concept of any object or other must satisfy. The schema of a pure concept "is simply the pure synthesis, determined by a rule of that unity, in accordance with concepts, to which the category gives expression." R. P. Wolff, in his treatise *Kant's Theory of Mental Activity*, offers a clear explanation of this definition:

> The real reason why categories cannot be brought to images is that they are not ordinary first-level rules at all. Rather they are types of rules. They bear the same relation to empirical schemata that empirical schemata bear to images.
What is meant is that the categories are "second-order" rules. They lay down the general conditions to which "first-order" empirical concepts must conform. Wolff tells us that Kant hints at this interpretation when he speaks of "the rule (or rather the universal condition of rules), which is given in the pure concept of the understanding."35 A universal condition of rules can only be a rule for rules. These schemata are the temporal interpretations of the categories as the conditions for the rules of empirical synthesis. The categories are thereby related to the sensible manifold through the determination of time.

The schemata are thus nothing but a priori determinations of time in accordance with rules. These rules relate in the order of the categories to the time-series, the time-content, the time-order, and lastly to the scope of time in respect of all possible objects.36

I have not examined in detail the correspondence between the various forms of judgment and categories, since it is the underlying principle that is important. Nor will there be a detailed analysis of the different schemata. However, the relevant logical judgment, category, and schema which afford us our "feeling of necessary connexion" will be closely examined in order to reinforce the Kantian contention that Hume's position regarding the principle of causality as generated from experience and custom is incorrect.

The logical judgment we are concerned with has the form, "If $C$ then $E$." Kant claimed that this corresponds to the Relation of Causality (and Dependence) in the Table of Categories. He believed this correspondence to be self-evident and did not therefore offer an argument in its defense. Some have refused to grant this alleged "self-evident" correspondence. Nevertheless, we need not concern
ourselves with this continuing controversy since it is the schema of
this category that is the essential factor for our argument. The
schema, which is the temporal interpretation of the relation of cau-
sality (and dependence), is that of "time-order." The schema repre-
sents a succession of impressions such that when a certain impression
occurs, it is followed by a second impression, and the schema pre-
cludes reversibility of impressions.

Kant further explicated this in the second analogy of experi-
ence. He wanted to show that: "Everything that happens, that is,
begins to be, presupposes something upon which it follows according
to a rule."^37

He offered two examples to demonstrate the difference between
subjective and objective (necessary) determination. (1) If one looks
at a house, the viewing of it can take place from top to bottom, bottom
to top, left to right, right to left, etc., reversing the order at
will; this, Kant claimed, is subjective determination. That is, the
sequence of impressions does not indicate that the house is undergoing
a change of any kind. Rather, the sequence depends solely upon the way
in which one **chooses** to look at the house. However, (2) if one sees
a ship on a river in place A at time \( t_0 \) and place B at time \( t_1 \), where \( t_0 \)
is before \( t_1 \), the order of the visual impressions obtained is not some-
thing that can be reversed by choice. This indicates an objective
order. One cannot have the visual impression of the ship at B before
he has it at A. The temporal order between A and B is objective, which
is to say necessary. This objective and necessary sequence is the
criterion of an event, which in this case is a ship's sailing on a
river. The sequence of impressions with respect to the house is
subjective and reversible. The house that is viewed is not an event; it is not something that happens. The sequence of impressions with respect to a ship's sailing on a river, however, is objective, necessary and irreversible. The ship's sailing is an event; it is something that occurs. It is regular and happens according to a rule. Such a rule is a necessary condition for being able to distinguish that which is an event from that which is not. Without such a rule, Kant claimed, there would be no possibility of using such concepts as "event," "occurrence," etc., and without this possibility it would not be possible to make any objective judgment or to have any objective experience.

The principle of causality is an a priori, second-order rule, which is necessary for the existence of the empirical rule which determines specific events—it is a condition for objective experience, and it is not derivable therefrom as Hume had claimed. This is not to say that specific cause and effect relationships are a priori; on the contrary, a cause of a specific event is only determinable by empirical observation. Kant, with regard to this point, said of Hume: "Hume was therefore in error in inferring from the contingency of our determination in accordance with the law the contingency of the law itself." 38

This closes the examination of that part of Kant's analysis of experience which results in conclusions antithetical to those of Hume. Hume claimed that all our beliefs about matters of fact are ultimately derived from impressions. He believed that these impressions, along with their exact copies (ideas) impose themselves upon passive receivers; and that it is upon these impressions alone that we build our
ideational structure. These impressions and ideas Hume called the "basic components of experience." Kant, on the other hand, claimed that a conceptual framework, complete with a priori rules for combining impressions in determined ways, is a necessary condition for the possibility of experience. He argued that Hume's description of the reception of impressions is not only false but, further, that a Humean-type of approach is untenable. Only impressions subsumed under concepts—impressions combined or synthesized through acts of unity and brought together under one consciousness—can be experienced. Kant therefore concluded that Hume's analysis of experience is fundamentally incorrect.

Experience is not merely a "given" impressing itself upon us, but rather a "posit," or interpretation (in the fundamental sense) of this "given," which man himself transcendentally imposes due to his faculties of intuition and reason. The world, as such, is an "appearance" to the human being. And that "appearance" must be structured and ordered in time. The world is man's temporal possession, and it is restricted in scope to his own limited faculties.

The final section of this paper will deal with the applications of these Kantian insights to some present-day challenges to modern empiricism.
III

In the two hundred years since the Critique was published the advance of science has placed many of Kant's assumptions in a dubious light. The laws of Euclid's geometry and Newton's physics, critics claim, were the "necessary truths" Kant employed in his analysis of experience. Newton's physics has given way, in many areas, to Einstein's theories. Euclid's geometry is now considered only one of various systems of viewing the spatial world. How then, it is asked, can Kant's assumptions regarding postulates of Euclid's geometry retain their "a priori" status? Does the force of the causal maxim diminish along with the loss of faith in the efficacy of Newton's theories?

Along other lines, the development of more sophisticated methods of formal logic appears to critics to justify an attack on Kant's use of the "subject-predicate" as the only form of judgment in compiling his Table of Judgments. The list, they claim, does not afford an accurate account of all the forms of judgment we employ. Since his pure concepts of the understanding (categories) were assumed to correspond exactly to the forms of judgment, it follows that the list of categories is also inaccurate. And since these categories are supposed to be the rules under which we organize experience, then in questioning the accuracy of the list of judgments a serious doubt is cast upon the soundness of the entire analysis.

But is this really so? Can it be shown, without attempting to
defeat each attack individually, that Kant's critical analysis exposed certain inherent flaws in the Humean interpretation of experience and revealed that certain conditions are necessary for having experience? I propose to show not only that this is the case but, further, that present-day arguments against modern empiricism correlate in many ways to Kant's criticisms of Hume. I wish also to suggest that the present-day arguments lack the sort of justification Kant's transcendental analysis sought.

To understand the challenges to empiricism currently taking place, let us review Hume's conclusions regarding experience, since it is generally accepted that his formulation of the doctrine provided the ground plan for empiricists at the beginning of the twentieth century.

1. All of man's ideas are ultimately derived from impressions.
2. There is a distinction between:
   a) Necessary truths discovered by thought alone (i.e. through deductive reasoning) which afford no knowledge of the world but merely concern internal relations of ideas, and
   b) Contingent beliefs regarding matters of fact which are ultimately derived from impressions and customs.
3. If a judgment of some matter of fact goes beyond direct observation (i.e. beyond immediate sense impression), it does so on the basis of empirical generalizations, i.e. by inductions from simple enumeration.
4. Every empirical generalization is founded on the principle of cause and effect.
5. The principle of cause and effect cannot be justified rationally,
i.e. by deductive principles, since it is based on a "feeling" derived from resemblance and constant conjunction of impressions.

6. Therefore, induction and empirical generalization cannot be rationally justified.

Hume's principles lead ultimately to solipsism: all that one can know is that there are one's own impressions here and now and, perhaps, in the past as well. The belief that there is a world of objects is based purely on instinct. It was Kant's claim that there could be no experience if this analysis is the correct one. Therefore, he attempted to expose its flaws.

Nevertheless, the above was the ground plan employed by the empiricists until approximately the 1950's. The followers of Hume (e.g. Russell, Carnap, Ayer, et al.) did not agree, however, that a belief in the external world was rationally unjustifiable. They believed that Hume's basic principles implicitly contained a rational justification for the belief. A special group of these empiricists, called "phenomenalists," argued that any object of the external world, as well as the world itself, is a kind of construction out of Humean "experience," i.e. sense impressions.39

By the early part of this century this scheme was worked out to a high degree of sophistication. The empiricists had come to take statements or propositions rather than terms or ideas as the basic units of meaning; the phenomenalist thesis that a physical object is a construction out of sensations was interpreted as the thesis that any statement about a physical object is translatable into a statement about sensations (or sense-data, as they called them). They believed that a categorical statement, for example that there is a green hat
on the brown table in the room, could be translated into a hypothetical statement about sense-data, e.g. that if a normal observer under normal observation conditions were situated so as to be able to view the room and he were attentively to make certain observations, then he would have certain experiential data, e.g. green patches, brown patches, etc.

The sense-data theorists (phenomenalists) finally gave up this hope of being able to translate propositions about physical things into propositions about sense-data. It came to be realized, along with other problems, that there is no finite set of statements about sense-data from which we can deduce a single physical-object statement. A major problem is that there is no finite set of statements that can express the condition of the presence of a normal observer. The objection (which was a death-blow to phenomenalism) is that the formulation of the principle of translatability requires the use of the concept "normal observer" which can not be successfully translated into sense-data language.

Harold Morick clearly summarizes this objection, which I owe to him, in his Introduction to Challenges to Empiricism.

In short, an objection fatal to phenomenalism is that its very formulation requires the use of a concept, that of a normal observer, which in principle cannot be defined phenomenalistically. Thus it is in principle impossible for anyone to provide a sense-data translation of even so banal a physical thing statement as "There is a new drainage pipe at the mouth of the Hoogly River."40

An interesting correlation can be made between the uneliminability of the concept "normal observer" and Kant's analysis of the "unity of consciousness," i.e. his discovery that in order for various impressions to be combined into the same representation (or "object"), they must be recognized as belonging to the same consciousness. This
unity of consciousness, the "I" that accompanies all representations, Kant claimed to be the underlying condition for all possible combinations of representations. In other words, my awareness of experience as being mine is the very minimal requirement for having experience.

Analogously, the phenomenalists themselves, in attempting to define all physical object statements in sense-data terms, realized that it is impossible in principle to eliminate the concept of "normal observer" (a physical object concept), since it is an integral part of the reduction procedure itself. This concept of "normal observer" coincides with the concept of "person," i.e., the one to whom experience belongs. In a similar fashion, the unity of consciousness coincides with the concept "person" in that it is the "I" that accompanies all representations. Kant claimed this "I" to be the underlying condition for all possible combinations of representations; the phenomenalist saw that the concept of "normal observer" is impossible to eliminate.

Although a similarity between the two viewpoints can be extracted, there is also a significant difference between them. The phenomenalists realized the impossibility of reduction through linguistic analysis. The inability to eliminate the "normal observer" concept was not an anticipated result of the analysis. It was an unexpected, distressing revelation—-but one that could not be dismissed. From the Kantian point of view, on the other hand, this irreducibility is comprehensible and inevitable. The transcendental investigation had led to the unity of consciousness as the key element in having experience. It is not an anomaly to be coped with; it is a necessary foundation for further theoretical claims.

Contemporary empiricists, therefore, rejected the Humean
assumption that what we directly experience are our own sensations.

Physical objects, in the broad sense of the term, constitute the objects of perceptions. The earlier phenomenalists were aware of common-sense beliefs in physical objects, but they held to their position because of the argument from illusion. They recognized that we sometimes undergo illusions, i.e., perceive physical objects to have properties they do not really have. For example, a round plate looks elliptical when seen from an angle. Since physical objects are expected to have invariable properties the phenomenalists concluded that we do not perceive physical objects, we only have mental images of them. All we are directly conscious of are our own sense data.

The contemporary empiricist is no longer disturbed by the argument from illusion. He believes that we have acceptable ways of stating that an experience is illusory rather than veridical. What we might say regarding an example like the above is: "It appears as if the plate were elliptical although, of course, it isn't." The new claim is that not only is the introduction of sense-data unnecessary to account for the facts of experience, but that it results in an incoherency as well. This claim of incoherency is based on the argument against the possibility of a private language, and sense-data language is, in principle, private.41

The argument, based on some remarks of Wittgenstein in his Philosophical Investigations, is that language involves rules of use. In a "private language," the notion of consistent or inconsistent application of a term like 'green' is without meaning, for there is no way you can tell whether you are using 'green' to stand for the same sense impression for which you used it in the past. There is no
independent criterion you can employ in order to check the correctness of your present use of the term. Therefore, a "private language" is not a language at all. It was this argument which aided in illustrating the untenability of the phenomenalists' claims, and which brought about a change in the empirical position from Humean phenomenalism to a contemporary empirical stand. 42

Can a correlation be shown to exist between this argument against a private language and the Kantian analysis? Remember that for Kant the categories are the rules of synthesis for unifying the intuitions so that they can stand together in "one universal self-consciousness." Experience, Kant claimed, is necessarily rule-determined. The contemporary empiricist claims that language is necessarily rule-governed. A correlation may be present. But let us examine these apparently similar conclusions regarding language and experience to see whether any important differences can be extracted.

The force of the Wittgensteinian argument against the possibility of a private language is based upon the recognition of that language's lack of an independent criterion for determining whether or not a term is being used in the same way at different times. It appears that an analysis of what conditions must obtain for something to be a language is what led Wittgenstein to the discovery that language must be rule-governed, i.e. there must be rules for determining the correct and the incorrect employment of terms within that language.

Kant proceeded by transcendental analysis. His investigation led to the conclusion that rules of synthesis are necessary conditions for the possibility of any experience. However, whereas Wittgenstein's
investigations recognized that for any particular language there are rules governing the employment of terms within that language. Kant's transcendental investigation led to the discovery of a specific set of rules (the categories) that determine any possible experience. These rules, it is true, were also initially discovered by an examination of language. However, their justification rests on the much more comprehensive analysis of experience itself. Wittgenstein's conclusions on the other hand, stand or fall with the facts of language. The difference between the two is, I believe, fundamental.

The contemporary empirical claim is, briefly, that the basic unit of empirical knowledge is the observation statement (i.e., a statement which reports a sensory observation). Scientific theories are supposedly built upon these observation statements, and the efficaciousness of the theories depends in part on experimental results which can be shown to conform to the observation statements. This latest formulation of empiricism came under attack, however, in the 1950's. Its critics argue that not only is this empirical picture of knowledge simplistic but that it is false and consequently misleading. Statements reporting sensory observations do not function as the foundation of knowledge at all. For observation claims are not immune from revision. The thrust of the argument is that observation claims are not independent or self-contained but that they derive their credibility from background assumptions. Every observation claim, in one way or another, transcends what is directly experienced; therefore, there can be no sharp distinction between observation claims and theoretical claims in a given system.

Further, critics have observed that not only do observation
claims derive credibility from background assumptions but they also derive their meaning from them. As Morick puts it: "It is held that our theoretical claims . . . give meaning to our observation claims."44 The meaning of an observation statement is dependent upon the background theory in which it is embedded.

Contemporary empiricism rests on the presupposition that there is a stable and invariant correspondence between perceptions and the stimuli which produce them. Results of empirical psychology, critics claim, disconfirm this presupposition. Observations are not merely "givens." They are always interpretations dependent upon background assumptions.45

This is the challenge to contemporary empiricism today. What I hope finally to show is that Kant's analysis presented a challenge to Hume which can be correlated to this challenge. And, further, that because his investigation was on a transcendental level rather than an empirical one, his analysis may still act as a valuable guide in directing contemporary critics to what I would regard as a well-founded argument against this empirical position.

The conclusions reached by Kant regarding experience are in accord with those of the present-day challengers of empiricism, mutatis mutandis. Kant concluded that the laws of appearances in nature must agree with the understanding and its a priori forms. The manifold, upon its reception under the a priori forms of sensibility, can be unified as objective experience only within the structure of the rules of synthesis (i.e., the pure concepts of the understanding), and these rules are in conformity with the original unity of consciousness. All objective experience, then, "appears" to a conscious subject (a
person) as it must necessarily appear, i.e. within the bounds of the intuition and the understanding. In other words, a conceptual framework complete with a priori rules for combining impressions in determined ways is a necessary condition for experience, and the character of that experience is dependent upon the framework.

Analogously, the challengers of contemporary empiricism argue that a theory-independent observation statement is an impossibility. A necessary condition for making observation claims is possession of a theory from which the claim can be made. The theory restricts the kinds of observation statements that can be asserted. If a theory or background language is changed to one of a different character, the observation statements will then make assertions about "data" of a different character. When describing the changes that come about with a change of paradigms, i.e. all-encompassing scientific theories, Thomas Kuhn states:

Paradigm changes do cause scientists to see the world of their research-engagement differently. In so far as their only recourse to that world is through what they see and do, we may want to say that after a revolution scientists are responding to a different world.

In both cases, Kant's and the present-day challengers', the contention is that a conceptual framework of some sort is a necessary condition for (1) experience, on Kant's view, or (2) observation claims, on today's theorists' views. Let us, as before, explore the possibilities of significant distinctions between these two views to ascertain what insight, if any, may be elicited from them.

Today's attack is based on the assumption that observations are dependent on theories. But these theories are proffered as tentative hypotheses, contingent and subject to revision. Kant, on the
other hand, regarded the conceptual framework he had discovered as necessary and universal, i.e. absolute and not subject to revision. This is indeed a fundamental difference.

But what is the relevance of this difference? The theorists who challenge empiricism are employing empirical data to develop and support their arguments. For example, in an article by Paul Feyerabend, one of these theorists, the thrust of the argument against the empiricist's condition of meaning invariance, which is that meanings will have to be invariant with respect to scientific progress; that is, all future theories will have to be phrased in such a manner that their use in explanations does not affect what is said by the theories, or factual reports to be explained,\textsuperscript{47} is supported by the recognition of the significant differences in the meaning of, for example, the concept "mass" as used by (1) Newtonian scientists and (2) Einsteinian scientists. Feyerabend uses this example to defeat the contemporary empiricist's notion of invariant "factual" reports about the world, concluding that any such "factual" report is contingent upon the theory in which it is embedded. Other theorists, as mentioned above, employ empirical psychology's findings to support their position against the claim of invariance made by the contemporary empiricist. The variations in what is regarded as "data" issuing from these empirical theories are offered as evidence that there are no "facts" of the matter. The theorists conclude that a background language, or theory, or framework (replete with necessary and sufficient rules for generating statements) appears to be the minimal condition required for the possibility of making observation claims; and, further, that the character of those claims is dependent upon the background theory. A direct corollary of these conclusions
is that there is no limitation on the number of possible background theories and, hence, no limitation on the various "facts" of the matter.

If this were the total extent of the theorists' claims, it would seem they have offered a sound argument for their position. But this is not the end of the story. The theorists also want to claim that certain theories are more "efficacious" than others. Here they run into a problem. If, as they claim, the "facts" are different when viewed from the perspective of a different theory, and the "facts" are only observed through a theory, then what extra theoretical criteria can be offered to evaluate one theory as more "efficacious" than another? In other words, how can they claim that the "facts" of one theory are to be preferred over the "facts" of another if, by their own argument, there is variance of meaning between the statements which report these "facts"? What criteria can they offer to decide between sets of "facts" which cannot be compared? It would seem that they can only employ the terms "preferable" or "efficacious" within a theory—not between theories. But the fact of the matter is that they do evaluate. Therefore, either their evaluations lack justification, i.e., there is no evidence to support their claim of the superior "efficaciousness" of any particular theory, or justificatory conditions are somehow surreptitiously being employed. But if the latter is the case, then these conditions (or independent criteria) used for evaluating must also issue from some theory. Yet the required theory cannot be another empirical theory. This, however, is the only sort of theory that today's challengers to empiricism seem to recognize. Since their arguments depend solely upon such empirical theories, it is my conten-
tion that they lack the justification necessary for the evaluations they offer.

Kant, on the other hand, although he began his investigation by analyzing empirical data, did not support his conclusions from this data alone. The transcendental method he employed, i.e., the investigation of the manner in which we, as human beings, must experience due to our sensible and intellectual faculties, led to the discovery of the necessary "second-order rules" (or basic conceptual framework) which determine the conditions of the possibility of any experience. Within that framework of "second-order rules," the empirical theories (or "first-order rules"), all of which are inferred from experience, can be evaluated justifiably as more or less efficacious. The present-day challengers of contemporary empiricism, therefore require, in order to provide the foundation for their position, independent criteria of the sort Kant discovered.
FOOTNOTES


2 Ibid., p. 4.

3 It is not clear as to what Hume meant by "derived," since in certain passages he claimed that simple ideas are exact copies of simple impressions, differing only in degree, not in nature.

4 It was this foundation that was the target of Kant's attack. His analysis was designed to show that if what Hume claimed were the case, there would not be a case at all. That is, the concept of experience entails more than just impressions. This will be argued for in Section II below.

5 Hume, Treatise, p. 10.

6 Ibid., p. 16.

7 Ibid., p. 34 (emphasis added).

8 It was one of Kant's aims in the Critique of Pure Reason to show not only that it is not possible for space and time to be derived from impressions or perceptions, but that the notions of space and particularly that of time are somehow prior to and necessary for having impressions or perceptions at all.

9 Hume, Treatise, p. 169.

10 It will be shown in Section II below that Kant argued against the correctness of this conclusion.


12 Ibid.

13 For the scope of this paper we need not concern ourselves with division 2 (b), since this does not deal directly with the analysis of experience.

14 Kant, Critique, p. 48.

15 Ibid., p. 44.
Kant employed the term "representation" in what appears to be a similar manner to Hume's use of the term "impression," and sometimes employed the term "impression" interchangeably with that of "representation." "Representation," or "impression," as Kant employed the terms, are closer in meaning to Hume's use of the term "perception." It will be shown in my discussion of the Analytic below that "impression" in the Humean sense could not have been employed in the manner attempted.

As shown in Section I above, Hume did presuppose the representation of space by his employment of the notion of the "manner of appearance" of impressions, although he claimed that the idea of space is derived from the impressions alone.

To say that something is a subjective condition is to say that it is a condition which is a property of a subject. For Kant, the subject is the recipient of the manifold, and forms of sensibility condition the manner in which this manifold can be received. In terms of the case being discussed in the text, this comes to saying that to experience a physical object is to experience an object in space.

Kant, Critique, pp. 77-78.

Ibid., p. 93.

Ibid., p. 105.

Ibid., p. 127.

Ibid., p. 129.

Ibid., p. 130.

Ibid., p. 151.

Ibid., pp. 131-32.

Hume, Treatise, p. 10.

Kant, Critique, pp. 152-53.

Ibid., p. 159.

Ibid., p. 162.

Ibid., p. 172.


Kant, Critique, p. 183.

35Kant, Critique, p. 179.

36Ibid., p. 185.

37Ibid., p. 218.

38Ibid., p. 610.

39Harold Morick, ed., Challenges to Empiricism (Belmont, Cal.: Wadsworth Publishing Company, Inc., 1972), p. 7. (The account I give in the text concerning the development of, and problems with, modern empiricism has been taken, for the most part, from Morick's "Introduction" to Challenges to Empiricism.)

40Ibid., p. 10.

41Ibid., pp. 11-12.

42Ibid., p. 13.

43Ibid., p. 16.

44Ibid., p. 17.

45Ibid.


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