Kant's Copernican Revolution

The Transcendental Horizon

J. EVERET GREEN

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J. Everet Green

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Dedication

To Zay D. Green who made the journey possible and Roy D. Morrison II whose critical philosophy provided the motivation.

Abstract

Immanuel Kant introduced us to a new way of doing philosophy which shows how the human person can grasp only those features of his or her world which he or she is able to realize through his or her own particular mode of experience. Whatsoever appears on the horizon of human consciousness must appear under the determinate conditions of space and time. Therefore human knowledge is limited. We can never have one to one correspondence with the object of knowledge. For transcendental philosophical reflection everything which appears in human experience is phenomena. The novelty of Kant's experimental method in philosophy opens up new ways of exploring and understanding what is involved in the knowing process.

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Foreword

Kant's Copernican Revolution: The Tranacendental Horizon by J. Everet Green

With this volume Dr. Green has provided a much needed essay on the place of Immanuel Kant in the history of western thought. Placing the focus on Kant's theory of knowledge, Green here sets forth with great clarity the difference that Kant has made to what is happening in our consciousness, tucked away in the gray matter behind our eye balls, when we human beings say, "We know that."

Before Kant the "that" that we know was always the object to which our human subjectivity was accommodated through sense perception. After Kant the pure "objectivity" of the objects we perceive became questionable, for Kant considered the contribution that our human consciousness and imagination makes to the synthesis of sense perception and our rational capacity that in his view produced the "objects" of our conscientiousness. Here the "representations" of our consciousness makes the objects possible. This is what Green, following Kant's own lead, calls "the Copernican hypothesis."

This volume is an excellent introduction to Kant's critical thinking, for it takes the student to the heart of Kant's critical methodology. At the same time it introduces the student to two divergent schools of Kantian interpretation, thus affording the student an opportunity to develop his/her own perspective on the issues. The centrality of the synthetic a *priori* judgments to Kant's critical philosophy is discussed in a fashion that provides an entre to the comparison of Kant's transcendental idealism with empirical realism as schools of thought.

Green's discussion of the "Transcendental Analytic" and the categories and forms of judgment in relation to human experience, together with his treatment of "causality and objectivity" accounts for the appeal of Kant's philosophy to natural scientists, who have found in Kant an important dialogical partner for the development of critical thinking as such.

Finally, one comes away from a reading of Green's essay with a decided impression of the perennial relevance of Kant's critical thinking for the development of the capacities of human consciousness. When the current wave of the fad of "deconstructionism" subsides, as it has already begun to

do, it will be the legacy of Kant that will provide the critical stance for "deconstructing" the projected assumptions about "modernity" that furnish the premise for the deconstructive enterprise.

Kant would never deny the constructive character of human thinking in the transcendental apperception, and any clearer analysis of the processes of synthetic judgments would only be welcomed in the effort to understand what is going on in our consciousness when we human beings say, "I know," or "I believe," or "it is my opinion." These degrees of human conviction are not set in concrete, but rather are operations of the human mind to which we must attend for the sake of coherence in thought, relevance in believing, and aptness of opining to the world of phenomena in which we find ourselves, both in the theaters of our TV sets, and of our towns and cities, but above all in the living theaters of our minds.

Michael D. Ryan Drew Forest, May, 1997

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INTRODUCTION

Just as Copernicus radically changed the human perception of the movement of heavenly bodies from the assumption that they all revolve around the observer to the assumption that the observer is somehow moving while the stars are at rest, so Immanuel Kant self-consciously conceived of his epistemology as a Copernican Revolution in philosophy. It is the purpose of this study to explore and to evaluate Kant's claim.

Whereas philosophy had always maintained that human knowledge must always be conformed to the objects of knowledge, Kant turned that assumption around. Perhaps we are able to know because objects somehow conform to our human capacity for knowing. The basic problem that Kant attempts to answer in his great work, *The Critique of Pure Reason*, is "What is knowledge, and how does it arise?" The principal sections of the *Critique* in which he presents his argument answering these questions are the Preface to the Second Edition, the Transcendental Aesthetic and the Transcendental logic. ¹

Many philosophers and literary critics have dismissed Kant as a typical 18th century rationalist or tried to overcome him by way of some other novel philosophical approach, or they have simply declared his philosophy obsolete.²

¹It is in these sections more than any other that Kant highlighted the fact that all theoretical knowledge lies within the limits of actual or possible experience and that our concepts, including the mathematical ones, could not possibly have any sense and meaning, if the range of possible experience was left behind. What is more, it is in these sections that Kant sought and found the universally necessary conditions of the possibility of any experience of objects. The proof of the analytic can be shown to rest on the deduction which, in turn presupposes doctrines of the aesthetic.

²Less than a decade after the application of the *Critique of Pure Reason*, Karl Leonhard was able to write that: "with one exception, perhaps there never was a book, so looked up to, so admired. so hated, so faulted, so decried-and so misunderstood." K.L. Reinhold, *Versuch einer neuen Theorie des menschilichen Vorstellungsver-moegens* (1789) reprint (1963) p. 12 This comment is as relevant now as it was then. It can also be said that since the

But contrary to these critics, I will attempt to present Kant as a philosopher whose work is still very relevant for the twentieth century. It was conceived in dialogue with the natural sciences, and it was his intention to account for human experience. It is just these features that render his thought so relevant today.

Drawing his inspiration from natural scientists like Galileo, Torricelli, and Stahl, he comments that a revelation came to the practitioners of the experimental method in natural science.

They learned that reason has insight only into that which it produces after a plan of its own, and that it must not allow itself to be kept as it were in nature's leading-strings, but must itself show the way with principles of judgment based upon fixed laws, constraining nature to give answer to questions of reason's own determining.³

The human person can apprehend only those aspects of his world which he or she is able to realize through his or her own particular modes of experience. The primary feature of the Copernican Revolution is the insistence that for an object to exist for us, it must conform to the conditions requisite for knowing it. Kant said that conforming our objects to our knowledge "would agree better with what is desired, namely, that it would be possible to have knowledge of objects *a priori* determining something in regard to them prior to their being given."

The revolution in thought thus consists in beginning with the reflection on reason itself, on its presuppositions and principles, its problems, and tasks. Reflection on objects will follow if this starting point is made secure.

Critique of Pure Reason began to be felt in the German speaking world and to a large extent in Europe and North America as a whole, there has hardly been a philosophical position that is not related in some way to this work - - even if the influence is in a wholly negative way.

³Critique of Pure Reason trans. Norman Kemp Smith, New York: St. Martin's Press, 1965, B xiii, p.20. All references to the Critique of Pure Reason will be to this edition unless otherwise indicated.

⁴Ibid., B xvi, p. 22.

I will argue that this critical philosophy is an inquiry into the power of reason as a faculty of knowledge. It begins by assuming that reason's powers are limited. If it is to know anything, reason requires an object which it cannot itself produce, but instead, must reproduce from something that is given. Kant's Copernican solution makes it possible to explain the failure of all previous efforts towards a scientific philosophy. According to Kant, philosophers previously sought to ground and certify their knowledge in a necessity which they attributed to objects. Philosophers perceived nature as possessing a necessity apart from and independent of the reason which seeks to discover it. But according to Kant, such necessity is in principle unavailable to reason. If reason is to have any certain knowledge at all, it must be *a priori* knowledge, available through reason's own resources and, besides produced by it.⁵ What Kant regards as totally new in his conception of reason's *a priori* task is the methodology employed. That is why Kant said that:

There are only two possible ways in which synthetic representations and their objects can establish connection, obtain necessary relation to one another. Either the object alone must make the representation possible, or the representation alone must make the object possible. In the former case, this relation is only empirical, and the representation is never possible *a priori*. This is true of appearances, as regards that [element] in them which belongs to sensation. In the latter case, representation in itself does not produce its objects in so far as *existence* is concerned, for we are not here speaking of causality by means of the will. None the less the representation is *a priori* determinant of the object, if it be the case that only through the representation is it possible to know anything as an object.

The *a priori* representation does not produce the object, as is the case when we form an idea of an action and then perform it. Rather, says Kant, the representation (category) determines the object in the sense that only through it is the object knowable. Previously, the object was assumed to exist, the problem is to explain how it could be known.

⁵*Ibid.*, p. 23.

⁶*Ibid.*, B 123, p. 125.

Knowledge, therefore, was conditional upon an independently existing realm of being. Now, however, Kant proposes to reverse this order making the realm of existing objects dependent upon the subjective conditions of knowledge. The *a priori* representations determine what can and cannot be known as an object. This revolutionary methodology involves, to a great extent, the substitution of epistemic for ontological concepts and principles.

Kant said:

The proud name of ontology must give way to the more modest title of a mere analytic of pure understanding.⁷

In a letter to Marcus Herz on February 21, 1772, Kant asks: "what is the ground of the relation of that in us which we call 'representation' to the object." Kant was interested in the conditions which make experience possible. Since all knowledge is knowledge by a subject, even the most general investigation of the modes and categories of reality will have to begin with an analysis of the limits and preconditions of knowing.

In Chapter One I will indicate what is Kant's intention in his references to Copernicus and the significance he draws from these references.

In Chapter Two I will give an overview as to how the most well-known interpreters of Kant have understood his revolutionary method. Attention will be given to the controversy which has developed over Kant, the epistemologist, and Kant, the metaphysician, and the attempt to overcome Kant by Heidegger.

Chapter Three will draw attention to the fact that in an attempt to explicate the conditions of experience, Kant introduces us to the problem of his theoretical philosophy by stating that both mathematics and physics rest on synthetic judgments *a priori*. According to Kant, our knowledge is in part *a priori* and not inferred from experience; on the other hand, it is also in part *a posteriori* and based on experience gained by sensory perception. Therefore, there is a sense in which, for

⁷*Ibid.*, A 247/B 303, p. 264.

⁸Arnulf Zweig, *Kant Philosophical Correspondence* (Chicago: University of Chicago Press, 1967, p. 71.

Kant, human knowledge is composed of both *a priori* and *a posteriori* propositions, and these propositions which are mutually related to each other, make possible our knowledge of the world.

Chapter Three, therefore, will lift up the problem of the *a priori*, which Kant applies to all kinds of ideas and mental acts, like intuitions, concepts and judgments. He defines a cognition to be *a priori* if it takes place independently of all experience. There are two connected criteria for cognition *a priori*. Experience teaches us facts but not necessities. A judgment which is thought together with its necessity and which is thought in strict universality is an *a priori* judgment. Kant believes that knowledge is a judgment from which a concept arises which has objective validity, that is, to which a corresponding object can be given in experience.

The only way that an object can be given is through space and time. For space and time are not given to us, but are the forms under which we perceive all objects of experience. Thus, the only *a priori* acquaintance with particular objects that we have is in a framework of space and time. Since Kant thinks that *a priori* knowledge is possible only when our knowledge determines its object rather than the other way around, an *a priori* intuition must be an element that we contribute to experience, and we can contribute at most the forms of our intuition.

All our encounters with particulars presuppose time and all our encounters with "outer" particulars presuppose space. Therefore space and time are the forms of inner and outer sense - - forms of intuition. Kant argues that space and time are pure forms of outer and inner intuition and empirically real though transcendentally ideal. ¹⁰

Thus, these two aspects (space and time are empirically real and transcendentally ideal) of the critical philosophy will be explicated in

⁹*Ibid.*, B 3, p. 43.

¹⁰Idealism as understood in the tradition within which Kant was working held that only the existence of minds and their contents is certain, thus making that of material things dubious. Kant thought that he had an effective and foolproof argument against that position. We could not make determinate statements about the time-relations of mental events without presupposing the existence of something more than mental. Matter is thus as certain as mind because commitment to its existence is bound up with the ordering of what goes on in minds.

Chapter Four where it will be shown that Kant draws a distinction between two levels of reflection. From the stand-point of everyday consciousness, we have to say that there is just as much reason to believe in the existence of physical things as there is to believe in the existence of minds.

The former in no sense depends on the latter, but must be accounted independently real in their own right. At the level of empirical reflection, there can be no doubt about the reality of material things which are located in space and endure through time. But from another level of reflection everything including scientific objects are themselves to be considered as phenomena. Mind puts something of itself into what it knows both at the level of seeing and that of thought. To recognize that space and time are phenomena at the second level - - the level of philosophical reflection in no way invalidates their empirical reality at the first level. Thus, there is a sense in which the validity of claims made at the empirical level is unaffected by any conclusions we come to when we consider the whole empirical order from the philosophical point of view.

The transcendental ideality of space and time is affirmed by Kant on the grounds that they function as the *a priori* conditions of human sensibility. At the transcendental level of philosophical reflection upon experience, ideality is used to characterize the universal, necessary, and therefore *a priori* conditions of human knowledge. ¹¹ Thus philosophical reflections show *a priori* judgments to be preconditions for the truth of judgments *a posteriori*.

A judgment is a relation which claims objective validity. For example, it makes a claim about how things are "in the object, no matter what the state of the subject maybe." Furthermore all judgment, all knowledge, involve, the application of a concept, which is to classify a particular item as being of some general type, as similar in some respects to other actual or possible items. However, combination of cases as similar, which Kant calls "synthesis" is something we perform ourselves; it is not simply given to us by our senses. Kant insists that it

¹¹Critique of Pure Reason, A 28-30/B 44-45, A 45-46/B 62-63.

¹²Ibid., B 142.

¹³Ibid., A 68/B 93.

is an act of spontaneity performed by the understanding, ¹⁴ and only if this synthesis is rule-governed can it yield judgments about objects. ¹⁵

The above discussion has taken us into the Fifth Chapter where Kant formulates the thesis that it is only in the form of synthesis, collection, and unification that cognition is at all possible. Cognition presupposes a unified memory with associated relational functions. Thus, we can only speak of unity in as much as it is a precondition of knowledge.

Now we are back to the Copernican standpoint, according to which all knowledge must be explained in terms of the subject's process of knowing - - that is, the preconditions for objective experience lie in the subject rather than the perceptually given (appearances). And experience must be of an object; it derives its objectivity from the categories as they function in determining appearances. Therefore, originally discrete appearances acquire determinations by the categories through synthesis, which is a cognitive act that transforms the perceptually given into objective experience.

Consequently, categories (rules by which the mind functions) are the preconditions for the objectivity of experience, so if appearances are to be objective, then they must conform to categories. Kant argues that pure concepts of understanding (categories) and the pure forms of sensibility, (space and time) are conditions without which experience and all objects of experience would be impossible. ¹⁶ He further argues

It is the understanding by the function of the categories which first of all creates the conditions of all knowledge. Sensibility (sense) always presents itself to me in the forms of perceptions (intuition) of space and time, first as a

¹⁴*Ibid.* A 77/B 107, B 129-130.

¹⁵*Ibid.*, A 105-7, B 132-8.

¹⁶ In distinguishing between concept and intuition Kant says that a concept is a rule for combination and synthesis. Thus: "All knowledge demands a concept, though the concept may be quite imperfect or obscure. But a concept is always as regards its form something universal which serves as a rule." (A 106). And about combination he says: "Combination does not lie in objects but in an affair of the understanding alone." (B 135) In trying to emphasize the difference between concepts and intuition he says: "Whereas all intuition, as sensible, rest on affection, 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." (A 68/B 93)

that these pure modes of knowledge are objectively valid universal laws to which all possible empirical things necessarily must conform.

The *a priori* forms of consciousness form the structural conditions of the process of knowledge in its causal temporal structure. They are necessary since without them, no cognitive-information process can occur. This is what Chapter Six will demonstrate. I will argue that human knowledge comes about by an interaction of objective structure (the real world) and subjective structures (the cognitive apparatus). Without the contribution of the object there would be no knowledge about the world. Without the contribution of the subject there would be no meaning, no concept, no proposition, no classification, no inference, no knowledge. that takes place between object and subject.

Prior to Hume, it was taken for granted that in saying, "the sun is shining and therefore rocks get warm," we should mean no more than "the sun is shining and then rocks get warm." A causal relation was meant to include some specific category, some necessity, and some ontological difference. Hume contends that it does not make sense to talk about causal necessity. What we should mean by "A" causes "B" is "if A, then always B" and nothing more. Hume's critique marks a turning point in the discussion of causality. Kant was disturbed from his "dogmatic slumber" and tried to counter Hume's argument by his synthetic a priori judgments. Hume considered causal inferences to be an instinct common to all human beings and even animals. however, would not content himself with this explanation. might fail, but the causal principle seemed to be unfailing and indeed infallible. Kant explains the universality (must obtain wherever there is human experience) and necessity of the causal principle by raising it to a synthetic judgment a priori, hence endowing it with a transcendental character such that it is independent of, but at the same time constitutive of, all experience.

That there are principles which render factual knowledge possible was an epoch-making discovery for Kant. Thus the essential ground of

chaos of sensations. It still requires the concept, since "perceptions without concepts are blind" and concepts without perceptions are empty. It is reason which at first creates in me an ordered structure of objects by virtue of concepts.

¹⁷ Immanuel Kant, *Prolegomena to Any Future Metaphysics*, trans. Lewis White Beck, Bobbs-Merrill: Library of Liberal Arts, 1976, p. 8.

the triumphant breakthrough in thought which the *Critique of Pure Reason* inaugurated and the foundation of its influence lay in the fact that Kant discovered the *a priori* presuppositions of the experimental sciences themselves. These presuppositions are not discoverable within the boundaries of experience but rather are grounding principles for the possibility of experience.

In conclusion I will indicate that although many have decried Kant's synthetic *a priori* propositions, he still remains the indispensable philosopher today not only for philosophy but for science as well. In spite of Hegel, Nietzsche, Marx, Heidegger, Husserl, and Wittgenstein, no one has been able to introduce a subsequent epoch-making work comparable to the *First Critique*.

It is important to note that there is a sense in which the experimental sciences, with their research orientation which must examine all dogmatic presuppositions through their own methodology, and the metaphysical tradition, with claims to eternal truths which had been part of the cultural history of the West since the Greeks, both received a definitive solution in the imposing structure of the critical philosophy. Referring to Kant, Reichenbach said: "What he wanted was an analysis of reason, what he achieved was an analysis of the science of his time." 18

Vollmer reinforced this general idea when he said: "There is no reliable science without epistemology. Every time a philosopher claimed to have found or even proved the theory of human knowledge in general it turned out that he had just formulated epistemological presuppositions of scientific knowledge *at his time*." ¹⁹

These comments are more appropriate to Kant than to any other philosopher. His epistemological theory was certainly a consistent philosophical system and revolutionary outlook. This revolutionary outlook has not only been the stimulus for the philosophical systems of the likes of Fichte, Hegel, Schelling and Husserl, but what is even more remarkable, Kant's *a priori* structures are currently being vindicated in

¹⁸H. Reichenbach, "Kant und die Natur-wissenschaft," *Die Naturwissenshaften*, vol. 21, 1933, p. 626.

¹⁹ Gerard Vollmer, "Mesocom and Objective Knowledge," *Concepts and Approaches in Evolutionary Epistemology*, ed. Franz M. Wuketits, Dordrecht D. Reidel, 1984, p. 77.

discussions in biology, genetic psychology and developmental psychology. It is in this context that Lorenz can argue that evolution is a cognitive process and that life is, in general, a process of learning.

Therefore:

One has to postulate the existence of innate teaching mechanisms in order to explain why the majority of learning processes serve to enhance the organism's fitness for survival; Furthermore these mechanisms meet the Kantian definition of the *a priori*: they were there before all learning and must be there in order for learning to be possible."²⁰

²⁰ Konrad Lorenz, Behind the Mirror: A Search for a Natural History of Human Knowledge, trans. Ronald Taylor, Harcourt Brace Joyanovich, New York, 1977, p. 89. See also Lorenz on Kant's "Lehre Vom Apriorischen im Lichte gegenwartigen Biologie," Blatter fur deutsche Philosophie, vol. 15, 1941, pp. 94-125. Lorenz is one of many eminent epistemologists who have been explaining the a priori structures of human knowledge via evolution. Others like Rubert Riedl's approach to evolutionary epistemology is based on a system of comparative biology. Rupert Riedl, "A System-Analytical Approach to Macro-evolutionary Phenomena," The Quarterly Review of Biology, vol. 52, 1977, pp. 351-370. For Lorenz and Riedl, the Kantian categories and intuition can be understood as products of evolution. Besides biological approaches to the a priori structures of knowledge, there are those like Karl Popper who have taken a philosophical approach to an evolutionary conception of knowledge. See Karl Popper, Objective Knowledge: An Evolutionary Approach, Clarendon Press, Oxford, 1972 and Unended Quest: An Intellectual Autobiography, Glasgow: W. Collins, 1976. See also D. T. Campbell, "Evolutionary Epistemology," in P. Schilpp, ed., The Philosophy of Karl Popper, Part I, Open Court, La Salle, 1973, pp. 413-463. The basic idea underlying the evolutionary position in epistemology seems to be the following: cognition, be it in the subhuman or in the human world, is a product of evolution; human knowledge therefore, cannot start from nothing. Hence, the existence of innate cognitive capacities, i.e. a priori structures of knowledge is very probable. However, these structures of knowledge are also the product of evolution. J. Piaget has also contributed to the development of evolutionary epistemology. Piaget was convinced that epistemology must be based on results from scientific investigations into the nature of knowledge - - such convictions underlay the intentions of evolutionary epistemology. Jean Piaget, Genetic Epistemology, Columbia University Press, New York, 1970, Main Trends in Psychology, G. Allen and Unwin, London, 1973. The primary focus of Piaget's work is the importance of understanding biological and psychological preconditions to mental capacities like speech.

Thus, even in science it has been shown that the human person cannot avoid making use of certain axioms and stipulations a priori. But it is primarily in the philosophical realm that the Critique of Pure Reason has made an indelible mark on the cultural traditions of the West. There is a sense in which not only German idealism but the phenomenological movement and positivism an be shown to have originated from the Critique of Pure Reason. Indeed I can confidently state that since the Critique of Pure Reason began to have an effect there has hardly been a philosophical discussion of knowledge that is not related in some way to this work.