Kant and language.

Stephen Joel Noren
University of Massachusetts Amherst

Follow this and additional works at: https://scholarworks.umass.edu/theses

Retrieved from https://scholarworks.umass.edu/theses/2517

This thesis is brought to you for free and open access by ScholarWorks@UMass Amherst. It has been accepted for inclusion in Masters Theses 1911 - February 2014 by an authorized administrator of ScholarWorks@UMass Amherst. For more information, please contact scholarworks@library.umass.edu.
KANT AND LANGUAGE

STEPHEN J. NOREN

1962
KANT AND LANGUAGE

by

Stephen J. Noren

Bachelor of Science Ch.E.
Ohio University

Thesis submitted to the Graduate Faculty in partial fulfillment of the requirements for the degree of Master of Arts in Philosophy

University of Massachusetts
Amherst, Massachusetts

August 1962
Acknowledgements

I should like to gratefully acknowledge the assistance accorded me by Professor J. W. Swanson in criticizing the manuscript of this thesis. In addition, I am greatly indebted to Mrs. Dorothy G. Thayer for invaluable help given to me in typing and proofreading. I also wish to thank Stephen Litke, Max Von Heinrich and Frederick Andelman, whose pertinent comments and criticism did not go unheeded, and Julius Finkle, without whose assistance this endeavor could not have been attempted.
**TABLE OF CONTENTS**

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>GENERAL INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>PART I. KANTIAN TRANSCENDENTAL IDEALISM IN BRIEF.</td>
<td>1</td>
</tr>
<tr>
<td>A. The Copernican Revolution</td>
<td>1</td>
</tr>
<tr>
<td>B. The Kantian Doctrine of Experience</td>
<td>7</td>
</tr>
<tr>
<td>C. The Understanding</td>
<td>18</td>
</tr>
<tr>
<td>D. In Retrospect</td>
<td>32</td>
</tr>
<tr>
<td>PART II. CRITICISM OF KANT AND NEO-KANTIAN THOUGHT</td>
<td>35</td>
</tr>
<tr>
<td>A. Space and Time</td>
<td>35</td>
</tr>
<tr>
<td>B. The Understanding</td>
<td>45</td>
</tr>
<tr>
<td>C. Modern Neo-Kantians</td>
<td>53</td>
</tr>
<tr>
<td>PART III. A BRIEF VIEW OF A DIFFERENT APPROACH: LINGUISTIC PHILOSOPHY</td>
<td>84</td>
</tr>
<tr>
<td>A. Introduction</td>
<td>84</td>
</tr>
<tr>
<td>B. Location of Particulars</td>
<td>88</td>
</tr>
<tr>
<td>CONCLUSION</td>
<td>108</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>115</td>
</tr>
</tbody>
</table>
GENERAL INTRODUCTION

In general, traditional philosophy prior to Kant envisioned the world as something inexorably given to the inquiring mind. The inquirer, though part of nature, was assumed to be outside of nature—in a sense, an observer. The world and the inquirer were related as object is to subject. Kant's doctrine of transcendental idealism partly reversed the order of this relationship. He considered the matter of the natural world as given, but the form of the world as supplied by the inquirer. In effect, the inquirer imposes a structure upon the world. In the realm of perception or sensibility, this structure consists of the pure forms of space and time. According to Kant, then, the mind orders the manifold of sensation through application of the a priori unifying forms of space and time. Furthermore, in the realm of the understanding, certain necessary categories of thought are understood as the criteria and set of rules through which the manifold of spatiotemporally ordered sensation becomes known to thought.

However, Kant's transcendentental system was mainly descriptive. There still remained the problem of explaining why particulars are positioned where they are in time and space. In other words, why does one perceive things as one
does and not otherwise? A more general explanation was needed to account for the peculiar pervasiveness of time and space in perception and conception as well as an account of the positioning of particulars within time and space. In addition, within the realm of the understanding, the Kantian categories proved insufficient in describing all judgements. Moreover, inconsistencies within Kant's transcendental framework pointed toward new formulations of his basic principles.

Neo-Kantians, such as Von Humboldt and Cassirer, endeavoring to give greater explanatory power to the Kantian hypothesis, contended that a third unifying agent, linguistic necessity, is a more basic and comprehensive unifying agent or form than space and time. Moreover, language was seen to provide a more inclusive set of categories ordering conceptual activities. Thus, Kant's system is seen to rest securely upon the power of language as a conditioning agent in sensibility, perception, understanding, and reason in general.

Contemporaneous with the work of Ernst Cassirer, a famous linguist, Edward Sapir, uncovered some important facts concerning the relationship between language and thought which were to be later developed and systematized by his disciple, Benjamin Lee Whorf. What emerged from the works of these two men is the so-called "Whorf-Sapir hypothesis." In essence, their doctrine mirrors the neo-Kantian contention, but claims to present empirical evidence on its behalf. As
such, their endeavor purports to add substance to the Kantian system by giving it a base in language, empirically verifiable through the sciences of linguistics and anthropology.

Throughout these developments, philosophy witnessed the coming of a new philosophical movement. Sired by the great English philosopher Ludwig Wittgenstein, this movement, called linguistic philosophy or analysis, brought its new methods to bear upon the problem at hand: the relation between language and thought. In this philosophical tradition, P. F. Strawson has formulated a "metaphysics" which seems to support a milder form of the Whorf-Sapir hypothesis. Strawson was led to recognize, through epistemological and linguistic considerations, the existence of a conceptual scheme which we all must possess as a condition of our communicating with one another. The nature of this scheme is seen to be mainly spatiotemporal. Although developed without explicit reference to the Kantian system, Strawson's descriptive metaphysics may be seen to further bolster the Kantian contention in the face of its most devastating criticism.

It is the purpose of this paper to examine the philosophical contentions of Whorf, Sapir, and Strawson, in regard to the relationship between language, the pure forms of space and time, and the Kantian categories of the understanding. This endeavor will proceed from an exposition of the Kantian position concerning the a priori structuring of raw sensation and the functioning of the understanding to criticism of these views and their subsequent implicit
reformulations with reference to linguistic considerations. This will involve an exposition of the possible senses of the philosophies of Whorf, Sapir and Strawson as they pertain to the matter at hand; the senses in which language conditions or determines the Kantian a priori particulars of time and space and supplies the pure concepts of the understanding. It is hoped that this enquiry will aid in rendering explicit the modern belief in the necessary connection between language, thought, and reality.
PART ONE

KANTIAN TRANSCENDENTAL IDEALISM IN BRIEF
I. KANTIAN TRANSCENDENTAL IDEALISM IN BRIEF

A. The Copernican Revolution

Modern philosophy began with faith. Religion gave to man a sense of general optimism and faith in the future. It is natural, then, that the first modern philosophers had complete faith in the power of the human mind to attain knowledge. These philosophers, alike in their spiritual beliefs, differed as to the methods by which such knowledge could be reached and how far its limits extended. Rationalists, empiricists, realists, and nominalists of the age all understood genuine knowledge as that which is clearly and distinctly perceived as universal and necessary. How this knowledge was to be attained posed a great problem to them.

The seventeenth century was a century that witnessed unparalleled progress in physics and mathematics. The success of mathematics and the mathematical method left a great mark upon philosophy. It was seen that it was possible to achieve certainty in mathematics while other disciplines resulted in only probable knowledge. Philosophers of the day, aware of age-old controversies in philosophy, hoped that by application of the mathematical method—deduction from "self-evident" axioms according to rigorous, fixed rules—solutions to philosophical problems could achieve a similar certainty.
The application of mathematical techniques to the measurable properties of what the senses revealed became the sole true method of philosophical inquiry and exposition. Descartes systematically doubted all that was given to him in sense-awareness in the hope of finding, by the light of nature, clear and distinct self-evident truths from which solutions to philosophical questions may be deduced. Analogously, Spinoza and Hobbes seek to give their reasoning a structure of a mathematical kind. Such a method was called "Rationalism." Thus, traditional rationalists expressed the belief in the power of the human mind to attain absolute knowledge through the mathematical method of inquiry. ¹

The advent of the physical sciences, literally, brought man to his senses. The spectacular results of Newton rekindled an interest in the material world. The philosophical procedure of developing "first principles" and "clear and distinct ideas" slowly gave way to the criterion of experimental evidence. Observation and experimentation supplanted the method of final causes as a valid philosophical procedure. As mathematics left its mark upon the philosophy of the early seventeenth century, so the experimental method influenced the philosophy of the late seventeenth century and eighteenth century. The scientific attitude is exceedingly clear in the works of Locke and Hume, who both had a profound respect for

natural science, and also in those of Berkeley, who was deeply concerned to deny its metaphysical presuppositions. To all of them the model was contemporary physics and mechanics. ²

With the coming of science and scientific methodology, the rationalistic theory of knowledge, with its reference to a priori ideas, became, to the philosophers of the day, obsolete. A new epistemology was needed that would conform to the new scientific spirit of observation and experimentation. From the point of view of an empiricist, how does one account for or define knowledge if sense experience is taken as a criterion? Moreover, this criterion of sense experience implies man as the instrument and source of knowledge. As the senses were considered fallible, so human knowledge was considered capable of fallacies. Since man is the basis of knowledge, and all knowledge is necessarily human knowledge, it was seen that knowledge depends on the nature of man and his intellect. ³ These were the mainsprings of classical empiricism.

Kant thus inherited two traditions of thought, namely rationalism and empiricism. In his day, their chief spokesmen were, respectively, Leibniz and Hume. Leibniz argues for the self-legislative character of pure thought. He agrees with the dictum of Saint Thomas Aquinas, "There is nothing in the intellect which is not first in the senses," but adds, "except

²Ibid., p. 250.
³Ibid., p. 345.
the intellect itself." Sense experience, he maintains, reveals reality only in proportion to which it embodies principles derived from the inherent character of thought itself. Experience conforms to a priori principles and so can afford an adequate basis for scientific induction.\(^4\)

Hume, on the other hand, questions our right to assume the principle that every change has a cause. He does so on the grounds that the principle insists on the necessary connection of two concepts between which no connection can be detected by the mind. In other words, there is no necessary connection between cause and effect, experience only finds that one event follows another.\(^5\) This far-reaching conclusion, that the principle of causality has no possible rational basis, Hume extends and reinforces through his other doctrines— that so-called "synthetic reason" is merely generalized belief. Thus, reason justifies itself by practical use, but can afford no standard to which objective reality must conform.\(^6\)

Kant was educated in the Leibnizian tradition. However, it was Hume's empiricism that "awoke him from his dogmatic slumber." While recognizing Hume's empiricism as significant, Kant also recognized the force of his arguments against the

---


presuppositions of science. In the wake of Hume, the results of science were no longer "certain" as the rationalists had held. If Hume was right, then science collapses to a mere science of chance justified only by its practical use.

Consequently, Kant's problem was to reconcile the Leibnizian view of the function of thought with Hume's view of the synthetic character of the causal principle. He thus strove to determine how much of Leibniz's belief in the legislative power of pure reason can be retained after full justice has been done to Hume's damaging criticisms.7 The question with which Kant was to deal effected a synthesis of rationalism and empiricism; that is, if the fundamental principles upon which all experience and all knowledge depend are synthetic in nature, how is it possible that they also be a priori?

The answer to this question constitutes the whole of the Kantian transcendental scheme which will be dealt with shortly. Suffice it to say that Kant believed that the answer to this question lies in the possibility of synthetic a priori judgements.8 Such judgements arise from our peculiar ways of knowing. According to Kant, the senses furnish the materials of our knowledge and the mind arranges them in ways made necessary by its own nature. The content of our knowledge is.


derived from experience (empiricism), but the mind conceives it according to a priori principles (rationalism) given by the mind itself. In such a scheme we may have certainty of knowledge, but such knowledge would apply only to the apparent world—the world ordered by mind. What reality is apart from this apparent world is forever beyond the scope and power of the human intellect.

Kant thus believes he has provided for a revolution in philosophy similar to the Copernican revolution in astronomy. He has introduced a new method into philosophy, the transcendental method, which for the first time, he believes, criticizes philosophical methods as such. Just as Copernicus explained the apparent motions of the stars as due to the motion of earthly observers, so Kant explains the apparent character of reality as due to the mind of the knower. An exposition of the precise nature of this new method shall be attempted, in part, in the next section.

\[9\] Ibid., p. 75.
B. The Kantian Doctrine of Experience

1. Introduction.

Kant's major work, The Critique of Pure Reason, lays a groundwork for his new transcendental science. Here he is concerned with our ways of knowing objects so far as that is possible a priori. Kant begins with dividing the mind into three major divisions, sensibility, understanding, and reason. These modes of the mind's way of knowing resemble the empiricist's division of ideas into simple and complex. In the realm of simple ideas or sensibility the mind is passive. However, diverging from the empiricists, Kant regards this passivity as applying only to the matter of experience. In the realm of the understanding, the mind is active in conceiving objects of sense. Each realm contributes an a priori element to knowledge. That part of the "Critique" which deals with the a priori element contributed by sense is called the "Transcendental Aesthetic." In Kant's words:

The science of all principles of a priori sensibility I call "transcendental aesthetic." There must be such a science forming the first part of the transcendental doctrine of the elements, in distinction from that part which deals with the principles of pure thought, and which is called "transcendental logic."10

Such a division of the human faculty of knowing is seen to be an abstraction. In dealing with the sensibility itself, the "aesthetic" must be understood as a provisional and

10Immanuel Kant, Critique of Pure Reason, Translated by Norman Kemp Smith (London: Macmillan and Co., 1929), p. 66. (Hereafter referred to as CPR.)
incomplete account of knowledge of sensibility. It is widely believed, by Paton\textsuperscript{11} for example, that Kant believed one could only fully understand his rational psychology after the complete "critique" was properly understood. Such a division, therefore, is an abstraction, but one which must be made so that certain elements of the mind may be properly isolated for analysis. Thus, Kant writes:

> In the transcendental aesthetic we shall, therefore, first "isolate" sensibility, by taking away from it everything which the understanding thinks through its concepts, so that nothing may be left save empirical intuition. Secondly, we shall also separate off from it everything which belongs to sensation, so that nothing may remain save pure intuition and the mere form of appearance, which is all sensibility can supply a priori.\textsuperscript{12}

> It is important to understand what Kant means by "pure intuitions." A pure intuition is the form as distinct from the matter of sensibility. Kant believes there are two such forms or pure intuitions, namely, space and time. This is expressed by him as follows:

> I term all representations pure (in the transcendental sense) in which there is nothing which belongs to sensation. The pure form of sensible intuitions in general, in which all the manifold of intuition is intuited in certain relations, must be found in the mind a priori. This pure form of sensibility may also itself be called pure intuition. If, then, I take away from the representation of a body that which the understanding thinks in regard to it, substance, force, divisibility, etc., and likewise what belongs to sensation, impenetrability, hardness, color, etc., something still remains over from this empirical intuition, which, even without any actual

\textsuperscript{11}\textit{Paton, op. cit.}, p. 93.

\textsuperscript{12}\textit{CPR}, p. 66.
Thus, it is found that there are two pure forms of sensible intuition serving as principles of a priori knowledge, namely, space and time. To Kant's consideration of these we shall now proceed.

2. The Metaphysical Exposition.

Kant maintains that space is a pure intuition constituting outer sense, a property of the mind through which objects are understood as outside us. Analogously, time is believed to be a pure intuition constituting inner sense, by means of which the mind "intuits itself and its inner states," in which things are represented as related in time. In his "metaphysical exposition," Kant endeavors to prove these points. He presents us with five arguments concerning space and five concerning time. Because of the great similarity and repetition of his arguments for space and for time, they will here be combined and presented in an abbreviated fashion.

Firstly, Kant hopes to prove that space and time are not empirical concepts. As such, neither space nor time can be derived from experience. His proof proceeds as follows:

Space is not an empirical concept which has been derived from outer experiences. For in order that certain sensations be referred to something outside me (that is to something in another region of space from that in which I find myself), and similarly, in order that I may be able to present them as outside

---

13 Ibid., p. 67.

14 Ibid.
and alongside one another, and accordingly as not only different but as in different places, the representation of space must be presupposed. The representation of space cannot, therefore, be empirically obtained from the relations of outer appearance. On the contrary, this outer experience is itself possible at all only through that representation.\textsuperscript{15}

Thus, to know things as outside the mind and related to each other is not really to know them as in different places, that is, different parts of space. The particular spatial relations in which sensa are given cannot be reduced to mere qualitative differences. Space must in fact be presupposed as a condition of such relations. A similar argument follows for time.

For an example, an empirical concept such as "elephant-ness" is presented all at once, in its entirety, by way of one elephant as experienced. But neither space nor time can be an empirical concept for neither all space nor all time is ever given in its entirety in experience. We experience only parts of space, although we know that this particular space is part of the whole of space. But the whole of space is never given in experience. Therefore space, and likewise time, are not empirical concepts.

Secondly, Kant shows that space and time are different from sensations such as colors, sounds, etc. They are different, he maintains, because one can think an object without its color, sound, weight, etc., but one cannot think away its spatiality and temporality. Of this Kant writes:

Space is a necessary a priori representation, which

\textsuperscript{15}\textit{Ibid.}, p. 68.
underlies all outer intuitions. We can never represent to ourselves the absence of space, though we can quite well think it as empty of objects. It must therefore be regarded as the condition of the possibility of appearances, and not as a determination dependent upon them. It is an a priori representation, which necessarily underlies outer appearances.16

Space is therefore, according to Kant, an a priori pure intuition and necessary to all outer awareness, as time is of inner awareness. Color, hardness, etc., are not necessary for our awareness of an object of knowledge, but spatiality and temporality are.

Thirdly, Kant argues, space and time are not discursive general concepts, but pure intuitions.17 To have a discursive concept, one must be able to contrast such a concept with others. However, all objects are in space and in time. There is no way to compare or contrast spatiotemporal experience with non-spatiotemporal experience since the latter is never given to us in sensation. In other words, a discursive concept contains the common marks of different individual objects. An intuition, however, is a single idea, an idea of a single object. For example, I conceive circularity, but I intuit this particular circle. It is therefore evident, Kant believes, that space and time are not discursive concepts but pure intuitions. This must be so because, he adds,

. . . geometrical propositions, that, for instance, in a triangle two sides together are greater than a third, can never be derived from the general concepts

16Ibid.

17Ibid., p. 69.
of line and triangle (by concepts alone). \(^{18}\)

In summation, space and time are pure a priori intuitions because of the oneness of space and of time. Different spaces are all part of one space, different times all part of one time. Space and time are, therefore, one and individual and as such are intuitions and not concepts. Moreover, different spaces must be thought of as within one all-embracing space. In fact, Kant believes, different spaces are known as the limitations of the one all-embracing space, which must be presupposed from the start. Space is a whole and time is a whole and, therefore, is logically prior to its parts. It seems evident to Kant to conclude that one pure intuition of space and one pure intuition of time must underlie all conceptions of space and time.

Perhaps the Kantian view of space and time can best be understood within the context of other theories prevalent in Kant's day. By far, two theories of space and time exerted the greatest influence upon Kant's contemporaries. These were the "absolute" theory of Newton and the "relative" theory of Leibniz. Newton conceived of an absolute space and an absolute time existing in reality apart from objects temporally and spatially related. \(^{19}\) As such, space and time were "receptacles." Kant, however, rejects the Newtonian theory on the grounds that space and time would be two eternal, infinite, nonentities

\(^{18}\) Ibid.

or "unthings" which exist but are not real. They exist, he explains, merely in order to receive anything real into themselves. Such a view, he believes, must be inconsistent, for it is metaphysically untenable.

On the other hand, Leibniz conceived space and time as relations of appearances; relations abstracted from real things in experience. More simply expressed, space and time are characteristics of things. Kant's doctrine may be seen as mainly directed against Leibniz. If Leibniz is right, Kant maintains, space and time would be a more generalization from experience. Such a belief was attacked and disproved in his metaphysical exposition. He adds that even if space and time were characteristics of things-in-themselves we could never obtain the certainty that we do in mathematics, nor could we assert the theorems of geometry as holding for the real world.

These two conflicting theories, then, presented Kant with hypotheses which he considered untenable. If space and time existed by themselves then metaphysical difficulties arise. On the other hand, if space and time are properties of things then the certainty of mathematics is not assured. It is not, therefore, surprising that Kant was led to the belief that

---


21 *CPR*, p. 80.


23 *CPR*, p. 71.
space and time are universal subjective forms of sensibility allowing for the certainty of mathematics and the objectivity of science.

Thus, space and time are not realities or things existing in themselves, nor are they qualities or relations of things existing as such. We must accept the fact, Kant believes, that space and time are pure forms of intuition, subjective mental forms, pure intuitions which must be presupposed in order for an object to be known to the inquiring mind. We cannot think or perceive things without space and time, but we can think without objects. Hence, space and time are necessary preconditions of phenomena and, thus, are necessary a priori. Such a classification provides geometry with a base and explains and defends its certainty. Unless space were a pure intuition, geometrical judgements could not have the necessity and universality which they, as a matter of fact, have.


Assuming the validity of Kant's arguments for the a priori nature of space and time, we are left with a novel theory of perception. According to Kant, the manifold of sensation is objectified—becomes possible objects of experience—through the mind's application of the pure forms of space and time. In perception, then, the manifold of sensation is unified and synthesized through the application
of the a priori pure forms of space and time. In other words, human perception must be spatiotemporal. What objects are apart from their spatiotemporal framework is forever unknowable. The manifold of sensation, then, being not yet amenable to human awareness, constitutes a realm of "things-in-themselves," or objects of which we know nothing other than the fact that they are the matter of sensation and are somehow causally related to perception. Such things-in-themselves, when arranged spatiotemporally by the human a priori forms of space and time, become known to us within this spatiotemporal system. We, then, live in a world of appearances, a world in which reality is automatically throttled spatiotemporally by the human mind. What things-in-themselves are, what reality is in itself, for humans, is a moot question.

However, Kant does not mean that we, as humans, live in a world of illusion. To clarify this position, it would, perhaps, be best to revert to Kant's own formulation:

When I say that the intuition of outer objects and the self-intuition of the mind alike represent the objects and the mind, in space and time, as they affect our senses, that is, as they appear, I do not mean to say that these objects are a mere illusion. For in an appearance the objects, nay even the properties that we ascribe to them, are always regarded as something actually given. Since, however, in the relation of the given object to the subject, this object of appearance is to be distinguished from itself as object in itself. Thus, when I maintain that

24 Ibid., p. 87.

the quality of space and of time, in conformity with which, as a condition of their existence, I posit both bodies and my own soul, lies in my mode of intuition and not in those objects themselves, I am not saying that bodies merely seem to be outside me, or that my soul only seems to be given in self-consciousness. It would be my own fault, if out of that which I ought to reckon as appearance, I made mere illusion. That does not follow as a consequence of our principle of the ideality of all our sensible intuitions—quite the contrary. It is only if we ascribe objective reality to those forms of representation, that it becomes impossible for us to prevent everything being thereby transformed into mere illusion.26

Thus, the realm of phenomena, possible objects of experience, is not illusion but a world of appearances. It is apart from the noumenal world of things-in-themselves only because the nature of the human mind is such that it must first spatiotemporalize this manifold before it can experience. The phenomenal world is therefore a relative reality and questions of ultimate reality are not pertinent to discourse about it.

Such a view, while returning physics and mathematics to the vaunted position they had prior to the skeptical philosophy of Hume, serves also to greatly limit metaphysics. Kant's position brings rationalism and empiricism together to give science a base—but at the expense of eliminating metaphysics as a supersensible science. Metaphysics would be possible only if it concerned itself with the world of appearances, the phenomenal world, the world as spatiotemporally ordered by the mind. Synthetic a priori propositions bear fruit only

26CPR, p. 88.
as applied to objects of possible experience. Thus, as science is saved by Kant's philosophy, metaphysics is eliminated. We are forced to give up the metaphysics of the past and substitute for it a metaphysics of experience. This is so because we can have a priori knowledge of things only in so far as what we know of them is impressed by the nature of our own minds. Kant's method introduces a new kind of metaphysics, one which decides its own boundaries. Kant professes to give us certain knowledge within the limits of experience. If we seek to go beyond such limits we must do so not by knowledge but by faith.

Kant's philosophy from the start, in the realm of sensation, indicates the limitations upon our ability to attain knowledge. However, his exposition here is not complete. There is still the role of the understanding to be investigated.
C. The Understanding

1. Introduction.

In the previous section, Kant’s theory of perception was discussed with an eye toward his completed theory of knowledge. It is seen, however, that a theory of perception is not enough to explain knowledge. Mere unrelated and disconnected percepts, mere perception of objects in space and time would not yield knowledge. For example, the mere perception of fire followed by the perception of charcoal is not the same as knowing that fire consumes wood. Only by connecting two experiences in thought in a certain way can one form the judgement that fire is the cause of the consumption of wood. The objects given to us in perception must be connected, related, conceived, or thought for knowledge to come about. The understanding, then, allows us to think the objects of sensible intuition. Thus, without sensibility no object would be given, but without the understanding, no object would be thought.

To make our percepts intelligible, we must first bring them under concepts. The understanding by itself cannot intuit or perceive anything. Analogously, the senses by themselves cannot think anything. It is solely by their union that knowledge arises. As Kant says, “Thoughts without content are empty, intuitions without concepts are blind.”

He continues, “We therefore distinguish the science of the

27Ibid., p. 93.
rules of sensibility in general, that is, aesthetic, from the science of the rules of the understanding in general, that is, logic.\textsuperscript{28}

Kant's account of the functioning of the understanding and the exposition of these "rules" of the understanding are found in his chapter on "Transcendental Logic." This will be the subject of the next section.

2. Transcendental Logic and the Categories.

The understanding has many ways of conceiving, relating, and connecting percepts. It is Kant's contention that the general criteria that these powers of conception, relation, etc., must measure up to, must be a supreme set of concepts. These criteria of the workings of the understanding Kant calls "pure concepts of the understanding" or "categories."\textsuperscript{29} They are called pure because Kant believes them to be a priori and not derived from experience.

The understanding, Kant maintains, expresses itself in judgement. Accordingly, understanding is a faculty of judgement. It follows, therefore, that the understanding in conceiving is also judging. Now, to discover the ways of the understanding, the criteria to which its powers of conceiving must conform, we must first analyse our judgements as to the forms in which they appear. Kant believes that one does not have to search far for these forms of conception. Indeed, they are already given in the discipline of logic. It is seen,

\textsuperscript{28}Ibid.

\textsuperscript{29}Ibid., p. 94.
then, that in logic, in this case the Aristotelian logic of Kant's day, these forms of judgement are exhibited.\textsuperscript{30}

Thus, the a priori concepts or pure concepts of the understanding (categories) can be discovered by referring to the basic forms of judgement which are already given to us as the subject matter of formal (Aristotelian) logic. It is then possible, so Kant believes, to deduce from these forms of judgement, the categories which act as criteria and set of rules for all the operations of the understanding. What, then, are these forms of judgement? Kant says the following:

If we abstract from all content of a judgement, and consider only the mere form of understanding, we find that the function of thought in judgement can be brought under four heads, each of which contains three moments. They may be conveniently expressed in the following table.\textsuperscript{31}

<table>
<thead>
<tr>
<th>Quantity of Judgement</th>
<th>Quality</th>
<th>Relation</th>
<th>Modality</th>
</tr>
</thead>
<tbody>
<tr>
<td>universal</td>
<td>affirmative</td>
<td>categorical</td>
<td>problematic</td>
</tr>
<tr>
<td>particular</td>
<td>negative</td>
<td>hypothetical</td>
<td>assertive</td>
</tr>
<tr>
<td>singular</td>
<td>infinite</td>
<td>disjunctive</td>
<td>apodeictic</td>
</tr>
</tbody>
</table>

\textsuperscript{30} Ibid., p. 96.

\textsuperscript{31} Ibid., p. 106.
What has here been given us is a "clue to the discovering of all pure concepts of the understanding." 32 Within the preceding table are to be found the complete logical functions of all possible judgements as displayed in Aristotelian logic. Kant believes this list to be complete, as the completeness of Aristotelian logic was not questioned in his day. But what of the pure concepts or categories? Kant tells us that there are exactly the same number of pure concepts of the understanding which apply a priori to objects of intuition in general, as have been found logical functions in all possible judgements. He argues, then, that these functions give an exhaustive inventory of the rules and criteria which govern the workings of the understanding. Thus, the completed categories are: 33

I

of Quantity
Unity
Plurality
Totality

II

of Quality
Reality
Negation
Limitation

III

of Relation
of Inherence and Subsistence
of Causality and Dependence
of Community (reciprocity between agent and patient)

IV

Modality
Possibility--Impossibility
Existence--Non-existence
Necessity--Contingency

32 Ibid., p. 102.
33 Ibid., p. 106.
"This then," Kant says, "is the list of all original pure concepts of synthesis that the understanding contains within itself a priori."\textsuperscript{34} This list, he believes, is necessarily complete.

Upon analysis of this table of categories, the first thing that suggests itself is that they fall naturally into two groups, which may be distinguished as the "mathematical" and "dynamical"\textsuperscript{35} categories. The former are concerned with objects of perception; that is to say, they express the first constitution of an object of experience by the synthesis of elements into individual wholes. For an example, let us apply the categories of quantity, i.e., unity, plurality, and totality. By the synthetic activity of thought, elements of perception, which are presented as a manifold, are combined under one of these categories. The product is the consciousness of a single object. Thus, before a line can be an object of thought, the perceptual elements or parts of the line must be given one after another and combined by thought into the consciousness of a single line. Thus, these categories deal with the relation or connection of objects of experience when they are viewed in themselves or separately.

The dynamical categories, on the other hand, deal with the relation or connection of objects not taken singly. These are the categories of relation and modality. The categories

\textsuperscript{34}\textit{Ibid.}, p. 102.

of relation are those which deal with objects as related to one another, the category of modality those which deal with the relation of objects to the understanding.

These categories, then, are the ultimate criteria which universally and necessarily apply to every thing so far as it is a thing. As universal and necessary, the categories are pure a priori. They are imposed by the mind on objects of possible experience given in sensation, and constitute the bare forms of judgement, the criteria and rules governing the function of the understanding. In other words, in order that an object be known by us, it must first consist of sensible matter held together by the categories in a necessary synthetic unity. It is this necessary synthetic unity which constitutes the universal and necessary character of any and every object. Hence, a category is a pure concept, a criterion of the necessary synthetic unity which must occur if we are to know an object.

The idea of synthesis is most important in Kant. He explains it as, "the act of putting different representations together ... into a unity." Accordingly, a synthesis of the manifold of sensation is what first gives rise to knowledge. It gathers elements from the manifold and unites them to form the concept of an object. The next section will deal with how such a synthesis takes place.

\[^{36}\text{CPR, p. 111.}\]
3. Transcendental Deduction and the Schematism.

Having given us an account of the categories or pure concepts of the understanding, Kant is faced with a pertinent problem, namely, by what right and by what means do we apply these mental forms of thought to things? In other words, what is their objective validity? How do the categories, independent of experience, apply to objects of experience? Kant endeavors to attack these problems in his "Transcendental Deduction." In his words:

Now among the manifold concepts which form the highly complicated web of human knowledge, there are some which are marked out for pure a priori employment, in complete independence of all experience; and their right to be so employed always demands a deduction. For since empirical truths do not suffice to justify this kind of employment, we are faced by the problem of how these concepts can relate to objects which they yet do not obtain from any experience. The explanation of the manner in which concepts can thus relate a priori to objects I entitle their transcendental deduction.37

Thus, as jurists call the proof of claims in a legal process a "deduction," so a deduction of the categories is needed here.

Kant's deduction consists in showing that without the categories intelligent activity would not be possible. Accordingly, there can be no knowledge, no connected world of experience without a unified or unifying consciousness or self-consciousness--the synthetic unity of apperception, as Kant calls it, which operates with these categories. Understanding, then, is judgement, the act of bringing together in

37 Ibid., p. 121.
one self-consciousness (unity of apperception) the manifold of perception. 38

The connectedness of objects, Kant believes, is due entirely to the human intellect. Only in becoming conscious of one's own identity, that one stands apart from the manifold of objects, is one able to become aware of objects proper and their connectedness, as distinct from isolated Humean impressions. Kant maintains that it must be possible for "I think" to accompany all representations; for only in so far as one can unite a manifold of given representations into one consciousness, is it possible for one to represent to oneself the identity of consciousness in those representations. In other words, awareness of self is only possible under the presupposition of a certain synthetic unity, namely, the synthetic unity of apperception. The power of combination does not lie in objects but is an affair of the understanding, the faculty of combining a priori, of bringing the manifold of given representations under the unity of apperception. Thus, the unity of apperception necessarily involves a synthesis. The reality of the thinking self consists solely in its ability to connect together a variety of presentations, and while connecting them become aware of its own unity and that of the sensible object which is being subjected to judgement. 39

38 There are other syntheses indicated by Kant, as, for example, the synthesis of the imagination. However, because they are of minor importance and for the sake of brevity, I have not here included a discussion of them.

39 Ibid., p. 141.
Thus, if human beings are to become aware of anything given in sense, it is necessary that, first of all, they synthesize their representations, and secondly, that they become conscious of the fact that they themselves are the source of this synthesis.

What has been presented here is a simplification of a vastly complicated forest of Kantian terminology. As I believe no greater depth of exposition is required for our purposes, suffice it to say that so simple an act as the perception of freezing water would be impossible unless the mind comprehends two states and connects them in a single act of thought. The same synthetic unity of apperception which is necessary in order that we may have judgement is necessary in order that we may have particular perception, in order that we may apprehend.

We know, then, that the mind orders the manifold. It is possible that we can know these a priori forms by which the universe is ordered. Thus, we know that the perceived world will always be connected to us in certain intelligible ways, that our experiences will always be spatiotemporal and connected as substance and accident, cause and effect, reciprocity, etc. We cannot go wrong, therefore, in applying the categories to the world of things.

It is seen, however, that Kant still has the problem of explaining in detail how the categories, which are intellectual, are applied to percepts, to sensible phenomena. Pure concepts and sensory phenomena are completely dissimilar or, according
to Kant, "heterogeneous."\(^{40}\) The question Kant is to deal with is how concepts and percepts may be "homogeneous." He says, "In all subsumptions of an object under a concept, the representation of the object must be homogeneous with the concept."\(^{41}\) How this is done comprises the contents of Kant's chapter on "Schematism."

In order to solve this problem, Kant believes there must be some third thing which is homogeneous on the one hand with the category, and on the other with percepts.\(^{42}\) This third something must function in a mediating capacity. In addition, it must be pure (a priori) and at the same time sensuous if it is to apply equally to both realms. "Such a representation," Kant maintains, "is the 'Transcendental Schema'."\(^ {43}\) It is this schema, then, which serves as a mediator between concepts and percepts.

What is the nature of this mediating something, this schema? Kant believes it to be our pure intuition of time, our intuition of inner sense serving a dual role. Since time is the immediate determining or conditioning agent of inner sense, all our experiences are ordered by us in time, that is, they take place in time. Hence, if the intellect and sensibility are to be related at all, Kant believes, they must be related by means of our pure temporal intuition. In

\(^{40}\)Ibid., p. 180.

\(^{41}\)Ibid.

\(^{42}\)Ibid., p. 182.

\(^{43}\)Ibid., p. 181.
addition, the a priori particular of time fills the conditions of being both a priori and sensuous. Thus, concepts are imagined, connected, and related in time. In so doing the intellect visualizes concepts in some temporal relation and thereby relates them.

To prove this contention, Kant has recourse to showing how, through time, the intellect affects sensibility. The intellect successively adds one to one, or considers time as a series of homogeneous moments. This operation of numbering, adding one to one, is the schema of the category of quantity, the category as expressed in the form of time. Analogously, the intellect comprehends reality in time. The content of the real is that which remains in the midst of change. In this way, the category of substance is operative in the intellect. In the same way, the category of causality is understood as a connection in time, etc. Thus, Kant shows, with some degree of difficulty, how time mediates between concept and percept. Kant sums up his argument as follows:

We find that the schema of each category contains and makes capable of representation only a determination of time. The schema of magnitude is the generation (synthesis) of time itself in the successive apprehension of an object. The schema of quality is the synthesis of sensation or perception with the representation of time; it is the filling of time. The schema of relation is the connection of perceptions with one another at all times according to a rule of time determination. Finally, the schema of modality and of its categories in time itself is the correlate of the determination whether and how an object belongs in time. The schema are thus nothing but a priori

It is seen, then, that the schema of the pure concepts of the understanding are the true and sole conditions under which these concepts relate two objects and so possess "significance." In addition, these concepts can have no other possible employment than the empirical. "They," Kant writes, "serve only to subordinate appearances to universal rules of synthesis, and thus, to fit them for thoroughgoing connections in one experience."

All our knowledge, therefore, must fall within the bounds of possible experience. The categories may be applied only to the manifold of sensation as spatiotemporally ordered by the mind prior to cognition. This spatiotemporally ordered manifold constitutes the bounds within which the categories are applicable.


As has been indicated, we cannot transcend our experiences and have a priori knowledge of the supersensible. Such a knowledge would be a knowledge of things-in-themselves, of things as they are apart from their mode of presentation, apart from our necessary spatiotemporalizing of them. Thus, things-in-themselves cannot be perceived by the senses; only

\(^{45}\text{CPR, p. 185.}\)

\(^{46}\text{Ibid., p. 186.}\)

\(^{47}\text{Ibid.}\)
the way they appear to consciousness is knowable. Moreover, they cannot be intuited by the intellect for there is no intellectual intuition. It is seen, then, that if we apply any of the categories to a thing-in-itself, we cannot justify their application.

We can, however, think such a thing-in-itself. We may speak of it as that which lies outside of sense perception, that which is non-spatiotemporal. No category, however, may be applied to it, because we have no means of knowing if anything corresponding to it exists. We could, for example, never know whether anything existed corresponding to the notion of substance if sense-perception did not furnish us with a case in which the category can be applied. However, we have no perception of a thing-in-itself. The thing-in-itself, then, is a limiting concept, it presents a limit to knowledge. Only the phenomenal, the world of appearances, is intelligible to man. What lies beyond it, the noumenal, lies forever beyond the reach of human knowledge.

As such, it follows that we cannot have universal and necessary a priori knowledge of anything non-perceivable. Hence, we cannot have a metaphysics that transcends experience, a metaphysics of the noumenal realm. Knowledge of God, free will, and immortality lies outside the realm of possible objective knowledge, outside the world of phenomena.

Kant believes he has shown that mathematics and geometry

48 See Kant's section on the "Refutation of Idealism," CPR, p. 244.
owe their necessity to our pure intuitions of space and time. Specifically, geometry is thought to be based on the a priori form of space and arithmetic on the notion of number which expresses a priori our pure intuition of time. In addition, natural science is seen to rest upon the categories. Cause and effect, reciprocity, substance and quality, etc., the judgements of science, are given a base not in sense-perception, but in the mind.

We can thus have universal and necessary knowledge in mathematics and in physics, but it is a knowledge of phenomena only, knowledge only of the form and arrangement of phenomena. Causal laws as synthetic a priori judgements bear fruit as applied to the realm of possible experience, the realm of spatiotemporally preconditioned sensation. The validity of science is believed restored from Hume's devastating attacks, but its application must be confined within the conditioned phenomenal world. Thus, scientific thought can again penetrate our passing sensations to a common objective world of substances in interaction, but this world is a world as it appears to human minds and not a world of things as they are in themselves.
D. In Retrospect

What has here been presented is a brief exposition of Kant's transcendental method and his philosophical beliefs. This discussion has proceeded as an account of Kant's philosophy which is pertinent to the matter at hand, namely, the development of neo-Kantian thought and the philosophy of language in general. The sections on the "Analogy," "Antinomies," and the 'Transcendental Dialectic' were omitted as irrelevant to the development of a context from which the main thesis of this paper may proceed.

No matter what one's philosophical beliefs may be, it must be agreed that Kant's contribution to philosophy was a major one. To Kant, what reality is to the inquirer depends upon the categories of thought inherent in the inquiring mind. What exists apart from these mental operations is forever hidden from cognition. Reality, then, is arranged or manipulated by man's thought processes so that what he may know relies solely upon what he may think. Man shapes and forms the barest real according to his methods of knowing. Metaphorically speaking, his mind casts mental beams of light toward the darkness of unknown reality. As such, the mind illuminates a circle of inquiry. However, what is observed is as much a function of the illuminating light as it is a function of the illuminated. The sheer power of these ideas secure Kant's position as a philosopher of the first order.

However, Kant's transcendental system, the system by which he believes the previous ideas are rendered explicit,
is by no means straightforward or consistently presented. In fact, many believe much of his philosophy is so obscure as to be almost unintelligible. The intricate workings of his system have, since its inception, been severely criticized by knowledgeable men of all disciplines.

No doubt, some of Kant's obscurities can be understood in terms of the revolutionary nature of his thought. Perhaps this explains why his terminology and general manner of presentation is difficult to master. Once, however, a clear meaning is abstracted from Kantian language—and this is often a very difficult task—there are many who, although agreeing with Kant in principle, are dissatisfied with the internal workings of his system. There are others, Whitehead and Russell for example, who are completely at odds with the basic tenets of his belief.

Kant's critics were and are quite numerous. Some of these criticisms will be brought forward shortly. For the present, however, suffice it to say these criticisms did not force the total abandonment of the Kantian first principles. His basic beliefs proved themselves to be important philosophical discoveries. These criticisms served only as impetus for his

49 Paton, op. cit., p. 48.


followers to improve upon his system. Kant's successors, called neo-Kantians, hoped to profit by Kant's mistakes and at the same time preserve the basic principles of his "Copernican Revolution." Such a view is stated by the neo-Kantian H. W. Cassirer as follows:

... I also happen to hold what at present is a most unfashionable opinion, namely, that the errors committed by the great philosophers are, generally speaking, not only more interesting but more fruitful than the truths propounded by lesser men.52

The task set before the followers of Kant was, then, to present the Kantian hypothesis as a consistent and coherent whole. While these men endeavored to achieve this goal, philosophy witnessed the birth of a new philosophical pursuit, namely, linguistic philosophy or the philosophy of language. Neo-Kantians soon found that the key to the remaking of Kant's philosophy lay in the principles of linguistic philosophy. Let us, then, embark upon an investigation of how criticisms of the Kantian system resulted in its reformulation by neo-Kantians and analytic philosophers in regard to the philosophy of language.

PART TWO

CRITICISM OF KANT AND NEO-KANTIAN THOUGHT
II. CRITICISM OF KANT AND NEO-KANTIAN THOUGHT

A. Space and Time

1. Geometry.

Having outlined the main points of Kant's philosophy, I shall now turn to the exposition of some of the criticism his contention has engendered. Thus, with an eye toward subsequent neo-Kantian reformulations of the Kantian hypothesis, let us proceed with shedding some light on some of the difficulties both inherent in and productive of Kant's philosophy.

As has been pointed out, Kant placed great importance in his belief that the certainty of geometry is constituted by our pure intuition of space. In fact, unless we possess such a pure intuition, geometry would be impossible. In Kant's day, the only geometry known was Euclidian geometry.\(^1\) It was believed to be true of the empirical world. Indeed, Kant's system can be seen as directed toward the conservation of this belief; for he hoped his philosophy would successfully account for its certainty in itself and its application.

Kant died just twenty years before Riemann developed the first non-Euclidian geometry. Unfortunately for Kant, the

\(^1\)It should be stressed that for Kant space means Euclidian space, and in particular, Euclidian geometry. For an account of this see Gottfried Martin, *Kant's Metaphysics and Theory of Science* (Manchester, G. B.: Manchester Press, 1961), p. 40.
development of modern mathematics and of modern mathematical theory casts grave doubts upon his assumptions in regard to geometry. Of this, one of his commentators has written the following:

According to the modern view, mathematics now aims at so high a degree of generality and abstractness that it has ceased to have any essential connection with quantity, and a fortiori with space. The result is that formal logic, mathematical theory, and pure mathematics, are all merged into an indivisible whole; and this whole is described as pursuing an analytical method.  

In other words, modern mathematics and geometry owe their certainty not to a pure intuition of space, but to their being analytic systems which proceed solely by deductive processes from fixed axioms and postulates. Hence, one does not need a pure spatial intuition to explain such certainty. This development taken alone does not disprove the Kantian hypothesis; for perhaps intuition of space can explain the Euclidian geometry of Kant's contemporaries, but when understood in the light of modern physics grave difficulties arise.

Modern relativity physics has provided for some startling discoveries affecting cosmological theories of space and time. In reference to Kantian philosophy, its most pertinent development was in the realm of geometry. Relativity physics has overthrown the old belief that Euclidian geometry is the sole geometry that is true of the world. In its place has been postulated the theory of what Reichenbach calls, "the

---

relativity of geometries.”¹ He states the following:

The theory of relativity shows that space and time are neither ideal objects nor formal forms of order necessary for the human mind.²

In the same vein, Paton writes the following:

Modern theory . . . denies that any one kind of space is more fundamental than any other. Above all, it denies that Euclidian space is more real or fundamental than any other.³

Thus, there are as many "spaces" as there are geometries. It is not surprising that Einstein chose a non-Euclidian space in which to describe certain spatial relationships. It is now seen that the world must no longer fit a geometry, but there is a question as to what geometry fits a certain empirical situation.

What, then, are the implications for Kantianism? It is understood that there are no longer any grounds for assuming that Euclidian geometry is true of the world, nor can one maintain that the certainty of geometry must depend upon a pure intuition of space. But what of visualization? If there is a complete relativity of geometry and one geometry is as good as the next, why not assume Euclidian geometry as being true of the world of experience; for it is the only geometry capable of being visualized.


⁵Paton, op. cit., p. 161.
This view, however, is seen to include a faulty premise. It is now widely held that non-Euclidian geometry can be and is visualized. Many geometers believe that they can do this. Many laymen, in fact, perceive "non-Euclidianly" every day.\(^6\) It is thus believed that a non-Euclidian geometry can be visualized with practice.\(^7\) We have now no other choice but to agree with Reichenbach when he states: "There is no defense of Kantianism."\(^8\)

If Kant's theory is to be maintained in a modern form we should have to hold that there must be as many pure intuitions of space as there are geometries; that there must be pure intuitions of space-time in the light of which all different geometries are intelligible. This, however, seems to stray far from Kant's original intentions. Furthermore, it is supposed that such a doctrine, in the hands of a competent scientist, can be reduced to meaninglessness. Kant's purpose was to justify and account for the strange pervasiveness and comprehensiveness of Euclidian geometry. In this context, perhaps Kant's greatest genius can be found in his ability to recognize the problem of explaining this pervasiveness.

---

\(^6\) Take, for example, one's perception of on-coming automobiles as viewed in a curved side-view mirror. After one becomes acclimated to the mirror's "distortions," it is simple to judge spatial relations.

\(^7\) The argument for visualization is stronger than I have here indicated. Nevertheless, Reichenbach makes quick work of it in *The Philosophy of Space and Time*, p. 44f.

As has been seen, Kant's explanation of space and geometry is rendered practically untenable in the light of the recent developments in physics and mathematics. The problem posed to Kant's followers was then to explain the preeminence of Euclidian geometry in perception and thought without recourse to a priori intuitions. Why is it, for example, objects are arranged by us in a Euclidian fashion? Why do we find non-Euclidian geometry so difficult to conceive? It has been pointed out by many, Frank in particular, that we are trained solely in Euclidian geometry in schools. It is to be noticed, however, that those without formal training have the same difficulty of visualization. There clearly must be an overall factor underlying spatial perception and thought that provides for the pervasiveness of Euclidian geometry. Neo-Kantians and others soon found that the "conditioning power" of the edifice of language could be this sought after factor. This, however, will be discussed in a subsequent chapter.

2. Space-Time.

In the section on the Transcendental Aesthetic, Kant holds that space and time are the forms by which the manifold of sense becomes known to us. Moreover, it is believed that space by itself and time by itself are the conditioning agents.

of such sensual knowledge.  

At the same time, Kant maintains that space is the form of outer experience and time is the form of inner experience. Of this Paton remarks:

If space and time are to serve Kant's purposes they ought to be universal and necessary conditions of all objects given to sense. It can hardly be maintained that Kant has shown space to be such a condition. Space is said to be the condition of outer experience and of outer intuition. This assertion definitely restricts or limits the experience of which space is said to be the limit.

In addition, Paton points out that, "similar difficulties might be raised in regard to time." Time is the form of inner sense only, that is, of the intuition of ourselves and of our inner states. It, therefore, cannot be a determinant of outer experience.

How are we to render Kant's account of space and time consistent in the light of Paton's arguments? There are places where Kant does not seem wholly unaware of this difficulty. For example:

Time and space are, therefore, two sources of knowledge from which bodies of a priori synthetic knowledge can be derived. Time and space, taken together, are the pure forms of all sensible intuition and so are what make synthetic a priori propositions possible.

It seems, then, for a consistent Kantian doctrine we must

---


11 Paton, op. cit., p. 146.

12 Ibid., p. 148.

13 CPR, p. 80.
understand space and time as conditions of all objects given to sense and must conclude that neither space by itself or time by itself is a sufficient condition for all sensual knowledge; that only their concatenation, space-time, can serve this function. Paton reaches a similar conclusion:

To make Kant's doctrine satisfactory we must recognize that space and time are ultimately bound up together, and that space is the mediate condition of inner, as well as the immediate condition of outer, experience.\(^{14}\)

Analogously, time is considered the mediate condition of outer experience and the immediate condition of inner sense. Thus, within the Kantian system, togetherness of space and time can be understood in terms of their mediate and immediate powers of conditioning or ordering the manifold of sensation. This interpretation can be seen to vary somewhat from Kant's exposition. However, it is this idea of the togetherness of space and time which served as a point of departure for improvements upon the Kantian system.

Bertrand Russell, one of Kant's most outspoken critics, finds great fault with the Transcendental Aesthetic. Such a view of space and time, he believes, is not consistent with the assumptions of not only relativity physics, but all physics. As such, the Kantian view is seen to be lacking in utility. Assuming, as Kant does, that percepts are caused by things-in-themselves, Russell presents us with the following argument:

\(^{14}\text{Paton, op. cit., p. 99.}\)
If we adopt the view, which is taken for granted in physics, that our percepts have external causes which are, in some sense, material, we are led to the conclusion that all the actual qualities in percepts are different from those in their unperceived causes, but that there is a certain structural similarity between the system of percepts and the system of their causes. There is, for example, a correlation between colors (as perceived) and wave lengths (as inferred by physicists). Similarly, there must be a correlation between space as an ingredient in percepts and space as an ingredient in the system of unperceived causes of percepts. All this rests upon the maxim "same cause, same effect," with its obverse, "different effects, different causes." 15

Thus, says Russell:

We have, on this view, two spaces, one subjective and one objective, one known in experience and one merely inferred. But there is no difference in this respect between space and other aspects of perception, such as colors and sounds. All alike, in their subjective forms, are known empirically; all alike, in their objective forms, are inferred by means of a maxim as to causation. There is no reason whatever for regarding our knowledge of space as in any way different from our knowledge of color and sound and smell. 16

With regards to time, he continues:

... if we adhere to the belief in unperceived causes of percepts, the objective time must be identical with the subjective time... take for example such a case as the following: You hear a man speak, you answer him and he hears you. His speaking, and his hearing of your reply, are both, so far as you are concerned, in the unperceived world; and in that world the former precedes the latter. Moreover, his speaking precedes your hearing in the objective world of physics; your hearing precedes your reply in the subjective world of percepts; and your reply precedes his hearing in the objective world of physics. It is clear that the relation "precedes" must be the same in all these

16 Ibid.
propositions. While, therefore, there is an important sense in which perceptual space is subjective, there is no sense in which perceptual time is subjective.17

I believe Russell has here presented a very cogent argument. Why should we regard our knowledge of space, on the perceptual level, any differently from our knowledge of smell and taste? Furthermore, how, according to this argument, may we say that perceptual time is subjective? Yet, Russell does not seem to be aware of the problem that Kant was trying so eagerly to solve; namely, how can one account for the peculiar pervasiveness of space and time in perception and conception? Perhaps Russell does not think this to be a problem at all. Nevertheless, there is much substance to his argument.

Perhaps Russell's most telling criticism attacks the Kantian theory as it stands. Of the metaphysical arguments concerning space and time he says:

The image which arises in one's mind is that of a cloak-room attendant who hangs different cloaks on different pegs; the pegs must already exist, but the attendant's subjectivity arranges the coats. ... There is here, as throughout Kant's theory of the subjectivity of space and time, a difficulty which he seems to have never felt. What induces me to arrange objects of perception as I do rather than otherwise? Why, for instance, do I always see people's eyes above their mouths and not below them?18

Thus, Kant's arguments tell us that objects of perception must be arranged spatiotemporally, but this does not explain

17Ibid.

18Ibid., p. 714.
why certain objects are spatially related to other objects the way they are. Russell continues,

Kant holds that the mind orders the raw material of sensation, but never thinks it necessary to say why it orders as it does and not otherwise.\(^1\)

Kant's system, then, does not explain the positioning of particulars (particular objects) in space and time. Clearly there is nothing in the matter of sensation, in things-in-themselves, which corresponds to the spatial arrangement of objects of perception. This can be seen as only a restatement of the Leibnizian position which Kant believes he has disproved in his metaphysical exposition of space and time. What is there, then, in the form of sensation, in space as a pure intuition, which can explain this phenomenon? Clearly, if Kant's system is to be consistent, one must account for the positioning of particulars in space and time. Furthermore, it must be pointed out why particular objects are positioned as they are—relative to other objects—and not otherwise. Such an endeavor must admit amendments to the Kantian system, must recognize something more basic than pure space and pure time as ordering agents or forms of sensation and at the same time account for Kantian space and time. Some modern philosophers concerned with the problem believe that language fulfills the role of explaining the peculiar positioning of particulars and can be seen as underlying Kantian space and time. An investigation of this claim will be attempted in the following chapters.

\(^{1}\text{Ibid.}\)
B. The Understanding

For Kant, the understanding is actively engaged in synthesizing and organizing objects of experience. It does this by way of a set of rules which act as criteria for all its operations. These rules are called categories or pure concepts of the understanding. Kant leads us to believe that these categories apply only to experienced objects; objects of possible human experience which have been pre-spatio-temporalized by sensibility. As such, the categories do not apply to things in themselves; things outside possible human experience. Thus, there is no justification of applying the categories to things outside of the manifold of sensibility. However, Kant, at the same time, holds that things-in-themselves are the causes of sensation. If such a statement is true then the category of cause may be applied to things-in-themselves. We are thus left with the contradictory conclusion that things-in-themselves are experienced, since categories may only apply to objects of experience. This seemingly inconsistent consequence of the Kantian hypothesis has its roots in certain statements made by the nineteenth century philosopher, Arthur Schopenhauer. He maintained that we cannot properly speak of things-in-themselves or a thing-in-itself, since in so doing we seem to apply the category of plurality or of unity to that which, according to Kant, cannot come under any category. Agreeing with Schopenhauer, Bertrand Russell says the following:
This inconsistency is not an accidental oversight; it is an essential part of [Kant's] system.20

However, there is some doubt as to the cogency of Schopenhauer's argument. The concept of a thing-in-itself is consistent if it is understood as a mere negation of what is known as an object of perception. In this sense, the concept of noumenon carries with it no metaphysical commitments. Accordingly, it is not necessary that we should know instances of a negation of a concept in order to speak in terms of it. In this connection, Körner believes:

It is . . . possible to reconstruct the critique in such a way that the concept of a noumena is in fact used only as a negative concept.21

Nevertheless, he adds:

But it would be a mistake to regard such reconstruction as a mere interpretation of Kant's philosophy.22

Thus, the case for Schopenhauer's criticism does not seem as certain as Russell would have us believe. However, as Körner points out, we cannot concede that Kant's critique, as it is presented, is free and clear of this kind of inconsistency. If we agree with Kant that a noumena is simply an "un-thing" but at the same time affects our senses, the concept of a noumena is no longer merely negative. A reconstruction of the concept of a noumena, although possible, would not be strictly Kantian. Whatever the degree of

20 Ibid., p. 208.


22 Ibid., p. 50.
importance one may attach to Schopenhauer's criticism, we cannot deny that there is some question as to Kant's theory of noumema as it is presented.

Before turning to further criticisms engendered by the Kantian theory of the understanding, it might behoove us to consider two assumptions Körner finds basic to Kant's concept of the categories.

Firstly, it is observed that Kant assumed it is possible to list logical forms of thought. No doubt he was led to this belief by his complete acceptance of Aristotelian logic. As such, he believed Aristotelian logic to be a science which is "closed and completed."23

The second assumption is his inherent belief that no new a priori concepts can be formed which would unify and synthesize presentations in a new way. This belief can be seen to rest upon Kant's dependence on Newtonian physics. Newton is regarded as having developed the sole method of scientific enquiry. As such, Kant can envision no other scientific categories of thought.

In the light of modern science and modern logic these assumptions have been the target for a great amount of criticism. Modern logic has shown that there are many more and different forms of judgement than Kant assumed. Contemporary logicians have totally abandoned the Aristotelian syllogism and replaced it with a much more sophisticated

23CPR, p. 17.
system recognizing many forms of inference. Regarding physics, one now finds many new scientific categories and concepts. For example, Köhrner mentions Whitehead's concept of four dimensional space and four dimensional events. He states:

Here is a concept which is to unify presentations in the manner exemplified in those objective empirical judgements which are found in relativity physics.\(^{24}\)

One could cite many similar examples of new and different scientific categories of thought for which Kant cannot account.

In what sense, then, can Kant have given us a complete list of all possible categories of judgement? Perhaps, it might be thought, his list of categories was sufficient to explain all judgements of his day. However, even if this was possible, Kant does not seem to be aware of the shortcomings of his own interpretation of Aristotelian logic. Of this Köhrner says the following:

[Kant believed] . . . to list all the possible logical forms of objective empirical judgement is a possible task, which is highly doubtful. Indeed, his own list is mistaken. He considers, for example, that there is only one form of hypothetical "if-then" judgement; we now know, as indeed the Stoics knew, that hypothetical judgements have a grammatical similarity which disguises fundamental logical differences amongst them.\(^{25}\)

Thus, there is some doubt as to not only the validity of Aristotelian logic, but also Kant's interpretation of it.

\(^{24}\)Köhrner, op. cit., p. 50.

\(^{25}\)Ibid., p. 50.
In addition, Kant may be seen to have disclosed a very biased list of judgements. His ideal of discovering all categories of thought by which the manifold of sensation is transformed into a synthetic unity is too greatly slanted toward only one mode of mental endeavor; namely, the realm of science. Of this, Ernst Cassirer makes the following comment:

[Kant believed his analysis] . . . can disclose the conditions on which all knowledge of being and the pure concept of being depend. But the object which transcendental analytic thus places before us is the correlate of the synthetic unity of the understanding, an object determined by purely logical attributes. Hence, it does not characterize all objectivity as such, but only that form of objective necessity which can be apprehended and described by the basic concepts of science. . . . When in the course of the three critiques Kant proceeds to develop the true "system of pure reason," he himself found this objectivity too narrow. In his idealistic view, mathematics and physics do not exhaust all reality, because they are far from encompassing all the workings of the human spirit in its creative spontaneity.26

Thus, Cassirer feels that Kant has failed to account for a great number of synthesizing acts by which sensory data may be objectified. By confining himself to an examination of the principles exhibited by Newtonian physics, Kant was led to underestimate, if not miss totally, other significant structures present and effective within common experience. Instead of restricting his attention to the superstructure of science, Cassirer believes that Kant should have tried to reveal categories of the various other domains of human

expression and representation in which perceptions appear as so many realms of objectivation.

It appears that we are forced to agree with Cassirer. In no sense can we say that Kant has supplied us with forms of thought comprising all human conceptual activity. Indeed, the categories pertinent to art, literature and language, to name a few, are not mentioned by Kant. However, we must also admit that even at the scientific and mathematical level, where Kant concentrated the bulk of his attention, his list of categories is still by no means complete.

It has been suggested, by Paton\textsuperscript{27} for example, that perhaps Kant's ideal is itself impossible, that one cannot dislodge from all forms of human endeavor, all forms of thought pertinent to those endeavors. We shall not be concerned here with deciding whether or not Paton is correct in this view. But we shall be concerned with the following question: if it is possible to discover these forms of thought where should one look? Furthermore, if these categories of thought are discoverable in principle, why should we think according to these rules and not any others?

We have here stumbled upon a problem which Kant does not seem to sense the importance of; namely, why are we all in possession of certain categories and no others? Of this, Kant says the following:

This peculiarity of the understanding, that can produce a priori unity of apperception solely by

\textsuperscript{27}Paton, \textit{op. cit.}, p. 211.
means of the categories, and only by such and so many, is as little capable of further explanation as why we have just these and no other functions of judgement, or why space and time are the only forms of possible intuition.28

Thus, Kant believes that the problem is such that no further explanation of the categories is needed, or for that matter, possible. However, Paton disagrees:

Kant's procedure seems to me consistent, but it does not really meet with the difficulties I have raised, namely, why our admittedly a priori knowledge of the forms of appearances should require explanation, while our admittedly a priori knowledge of the forms of thought should require no explanation.29

We have already seen that the Kantian categories are in many ways incomplete. Moreover, there is still the problem of deciding where to look for these categories. There clearly must be some explanation, some reason why we think according to certain forms of thought and not others. If we can find such an explanation perhaps we may be able to enlarge and refine the list of Kantian categories.

Modern anthropology has shown that to a large extent diverse cultures produce diverse patterns of thought. For this reason, many neo-Kantians and modern philosophers in general have sought to relate categories of thought with culture. Because cultures express themselves through the medium of language, language is found to contain the key to the conceptual system of a particular culture. Culture and language, then are seen to supply these sought after categories. The neo-Kantian


29Paton, op. cit., p. 565.
connection between culture, language, and the categories will be investigated in what follows.
C. Modern Neo-Kantians: Language and Culture

1. Introduction.

The criticisms of the Kantian system that I have here briefly developed must be understood as a fragmentary account of a vast area of philosophical criticism. Moreover, the foregoing criticisms have been pre-selected because of their relevance to the reformulation of the Kantian doctrine by those scholars called modern neo-Kantians.

The term "neo-Kantian" is somewhat vague, for it is freely applied to a whole gamut of philosophers. For example, the term is applied to those who interpret Kant through the philosophy of Hegel. At the same time, it is also applied to a class of nineteenth century philosophers who limited philosophy to the analysis of states of consciousness. However, in lieu of effective criticism of the Kantian system, it was natural that philosophers should again take up the problem of knowledge, to which Kant had given such careful and sober attention, and subject the various intellectual tendencies of the age to critical examination. In 1865, O. Liebmann raised the cry: "Back to Kant." The critical philosophy, then, became the rallying point for all those who opposed the methods of the Hegelians and the progress of materialism, as well as for those who distrusted metaphysics altogether.

During the early part of the twentieth century, this

---

movement, called the neo-Kantian movement, grew to large proportions. The members of this group emphasized the need of epistemological investigations, some even regarding the philological study of Kant's writings, especially the Critique of Pure Reason. However, the specific doctrines of those in this movement varied greatly.

In recent years, however, there has emerged another class of neo-Kantians. These philosophers differed from the others in recognizing language as the key factor in rendering Kantian philosophy consistent in the light of modern criticism. Briefly, their contention is that language may be seen as the means by which the sensory manifold is objectified for thought. As such, language presents a partially completed list of the Kantian categories and is seen to underly and explain the Kantian pure intuitions of space and time.

The spokesman of this movement is generally considered to be Ernst Cassirer. As previously discussed, Cassirer generally accepts the Kantian methodology but believes that Kant failed to account for a great variety of synthesizing acts by which sensory data is objectified—spelled out in order to be read as experience. In other words, Cassirer denies that Kant has presented us with a completed list of the categories

31 Ibid.

and has adequately explained the process of perception.\textsuperscript{33} He believes that Kant did not realize the full range of application for which his method could bear fruit. As such, he demands an extension of Kant's critical method to domains of reality other than those structured by Newtonian physics.

Cassirer's general doctrine states that the function of language is not to copy reality but to symbolize it. A language is a system of categorical devices which give form to the world. As such, any attempt to distinguish between language and the world is mistaken.\textsuperscript{34} To ask what reality is apart from these forms inherent in language is irrelevant. Every form of existence has its source in some peculiar way of seeing, some intellectual formulation and some intuition of meaning. Cassirer holds, moreover, that there are several "languages"\textsuperscript{35} or "perspectives" each with its own "reality." These are, roughly, the world of common sense, the world of myth and art, and the world of science.

But how does one go about establishing Cassirer's claim that language both shapes the world and symbolizes it? If we cannot "see" the world except through language, there is no sense in offering empirical evidence for such a view. In other words, the world we investigate is one already shaped

\textsuperscript{33}See the introduction to Ernst Cassirer's, \textit{The Philosophy of Symbolic Forms}, trans. by Ralph Manheim (New Haven: Yale University Press, 1953).

\textsuperscript{34}Ibid., p. 93f.

\textsuperscript{35}Ibid., p. 107.
by language. There is no getting outside the limits of language to verify the fact empirically. This point Cassirer himself fully realized. It is a necessary consequence of his philosophical system that this should be so.

Cassirer's philosophy answered many of the questions raised by critics of the Kantian system. Since the form of his philosophy prevented empirical proof for his claims, many critics, intoxicated with the positivism of the twentieth century, found little value in Cassirer's beliefs. However, two linguists, Whorf and Sapir, independently arrived at much the same beliefs as Cassirer held. Their thesis was formulated in such a manner as to be amenable to empirical proof. In fact, their conclusions were arrived at through data accumulated in linguistics and anthropology. It is this formulation of the relation between language and thought that we shall, shortly, study.

2. The Whorf-Sapir Hypothesis.

With few exceptions, philosophers throughout the history of philosophy uncritically accepted what may be called the "copy" theory of language. These philosophers firmly believed that the relation of a word to the object it denotes, and the relation of language in general to the world in general, was one of representation or copying. As such, the function of language was merely to faithfully reproduce the nature of the world as it appeared to the observer—in a sense, mirroring the world. Languages, then, differed only in the names given to objects. Linguistic communication was conceived as an
activity in which one is free and untrammeled, every language being equally well fitted for the communication of any and all beliefs. Thus, traditional philosophy believed that thinking is an obvious, straightforward activity, the same for all rational beings, of which language is the straightforward medium of expression.

However, modern anthropology and linguistics have shown that there is no reason to assume that language serves only as a neutral medium which simply represents experience. In fact, it is believed that language presents the mold in which the content of experience is to be poured. Language, then, is no longer a mere representation of the experienced world, but is seen to be constitutive of experience in the Kantian sense of the term. More than twenty years ago, Edward Sapir, a noted linguist and anthropologist, took the first steps in explicitly formulating this new view of the role of language. He maintained:

The relation between language and experience is often misunderstood. Language is not merely a more or less systematic inventory of the various items of experience which seem relevant to the individual, as is so often naively assumed, but is also a self-contained creative symbolic organization, which not only refers to experience largely acquired without its help but actually defines experience for us by reason of its formal completeness and because of our conscious projection of its implicit expectations into the field of experience.36

Perhaps a more explicit formulation of this doctrine proceeds

as follows:

Human beings do not live in the objective world alone, nor alone in the world of social activity as ordinarily understood, but are very much at the mercy of the particular language which has become the medium of expression for their society. It is quite an illusion to imagine that one adjusts to society without the use of language and that language is merely an incidental means of solving specific problems of communication and reflection. The fact of the matter is that the "real world" is to a large extent unconsciously built up on the language habits of the group.37

Sapir believed that a comparison of radically different languages would bring a realization of the full force of his contention. Unfortunately, Sapir died before he had a chance to complete his work. It remained for another linguist, Benjamin Lee Whorf, to further develop Sapir's claim. In a series of scientific papers, which have since been collected into book form by John B. Carroll,38 Whorf developed the now famous "Whorf-Sapir hypothesis." The full and complete exposition of all Whorf's beliefs is nowhere expressed in one concise hypothesis, the term "hypothesis" being somewhat of a misnomer. In fact, many of Whorf's contentions are not explicitly formulated but may only be seen as lying behind the veil of some very eloquent rhetoric.


Conveniently, Max Black\textsuperscript{39} has extracted ten propositions, or theses, from Whorf's sometimes exaggerated style of exposition. These propositions, I believe, separate the wheat from the chaff and present the main views of Whorf in their clearest form. These are as follows:

(1) Languages embody "integrated fashions of speaking" or "background linguistic systems," consisting of prescribed modes of expressing thought and experience.

(2) A native speaker has a distinctive "conceptual system" for "organizing experience," and (3) a distinctive "world view" concerning the universe and his relation to it.

(4) The background linguistic system partially determines the associated conceptual system, and (5) partially determines the associated world view.

(6) Reality consists of a "kaleidoscopic flux of impressions."

(7) The "facts" said to be perceived are a function of the language in which they are expressed, and (8) the "nature of the universe" is a function of the language in which it is stated.

(9) Grammar does not reflect reality, but varies arbitrarily with language.

(10) Logic does not reflect reality, but varies arbitrarily with language.

It would seem, then, that language works in much the same way as the Kantian pure intuitions and pure concepts of the understanding. Whorf believes, as William James did, that the substratum of experience consists of a blooming, buzzing world of kaleidoscopic impressions. However, it is language which gives form to this manifold, which presents

the framework into which reality is to be fitted. Whorf states:

Segmentation of nature is an aspect of grammar. We cut up and organize the spread and flow of events as we do, largely because, we are parties in an agreement to do so, not because nature itself is segmented in exactly that way for all to see. Languages differ in not only in how they build their sentences but also in how they break down nature to secure the elements to put in those sentences.40

And again:

The why of understanding may remain for a long time mysterious; but the how of logic of understanding--its background of laws of regularity--is discoverable. It is the grammatical background of our mother tongue, which includes not only our way of constructing propositions, but the way we dissect nature into objects and entities to construct propositions about.41

The power of Whorf's claim is readily apparent. His style is as stimulating as his ideas themselves. No doubt, even an extremely dull reader would be stimulated by his lively presentation. Whorf's exposition is literally charged with a novelty and originality rarely found in philosophy. However, although Whorf endeavors to supply proof for all his contentions, there is much in what he says that remains unsupported and indeed, some that is tainted with the mystical. To clarify and investigate Whorf's claim, it would, perhaps, behoove us further to break down his hypothesis into two doctrines, namely, linguistic relativity and linguistic determinism.

40Whorf, op. cit., p. 240.

41Ibid., p. 239.
Linguistic relativity is Whorf's belief that each language embodies a particular world view or "Weltanschauung." As such, the speakers of a language are partners to an agreement to perceive and think of the world in a certain way—not the only possible way. Experience can be structured in a certain way, or to use Kantian language, the manifold of sensation can be unified in various ways, by different languages which operate within these structures.

Linguistic determinism expresses Whorf's belief that the language of a speaker is the principle determinant of his thought. Language not only embodies a world view but also perpetuates this view. A particular language, then, determines the thought of its speakers.

It is doubtful that Whorf was a serious student of Kant. In all his essays there is not one reference to Kant or to his critique. There is, however, a great amount of parallelism between their hypotheses. As Whorf was not a formal philosopher, the term neo-Kantian being somewhat ill fitting, it remains for us to deduce the effect of Whorf's proposals upon our interpretation of neo-Kantian philosophy if his doctrines are taken seriously.

In the realm of sensation, Kant believed that we have a pure intuition of space and time. The reasons for this belief were previously noted. It has, however, come to our attention that such a doctrine is no longer tenable in the light of modern physics and mathematics. In addition, Whorf and others have found cultures of people that do not have the
same conceptions of time and space to which Kant accords universality in all human intuition. Of this, Whorf says the following:

I find it gratuitous to assume that a Hopi [North American Indian] who knows only the Hopi language and the cultural ideas of his own society has the same notions, often supposed to be intuitions of time and space, that we have and that are generally assumed to be universal.42

Whorf believes there are many ways to intuit space and time. In fact, there are as many different intuitions of space and time as there are different languages and cultures. He states:

I find it gratuitous to assume that Hopi thinking contains any such notion as the supposed intuitively felt flowing of [Newtonian] "time," or that the intuition of a Hopi gives him this as one of its data. Just as it is possible to have any number of geometries other than the Euclidean which give an equally perfect account of space configurations, so it is possible to have descriptions of the universe, all equally valid, that do not contain our familiar contrasts of time and space. ... Thus, the Hopi language and culture conceals a "metaphysics," such as our so-called naive view of space and time does.43

Thus, the language of a culture embodies a metaphysics which, in turn, is responsible for a particular intuition of space and time. There is, then, a relativity of space-time intuitions behind which lurks the metaphysics inherent in languages.

Language, for Whorf, works much in the same way as pure intuitions do in the Kantian transcendental system. Reality

42Ibid., p. 57.
43Ibid., p. 58.
is seen as a "kaleidoscopic flux of impressions" similar to the unformed manifold of sensation. Such a flux of impressions represents the bare substratum of experience. To Kant, our pure intuitions of space and time unify this flux or manifold spatiotemporally to make it amenable to experience. As such, the intuitions of space and time constitute the form into which the given material manifold must fit in order for it to be experienced by human beings. Analogously, Whorf believes that this manifold or flux must be given form to be experienced coherently. However, relating to Kantian sensibility, Whorf has found that different cultures have diverse "intuitions" of space and time. This relativity of spatiotemporal intuitions points to a more basic formal element in experience than Kant had envisioned, which may boast a universality in all cultures. This element, Whorf believes, consists of language. The covert features of a language are seen to produce an intuitive metaphysics responsible for the formal patterned aspects of experience. As such, languages operate upon reality, patterning and structuring the barest elements of sensation into an intelligible system. He states:

We cut nature up, organize it into concepts, and describe significances as we do, largely because we are parties to an agreement to organize it in this way—an agreement which holds throughout our speech community and is codified in the patterns of our language. The agreement is, of course, an implicit and unstated one, BUT ITS TERMS ARE ABSOLUTELY

44Ibid., p. 213.
OBLIGATORY; we cannot talk at all except by subscribing to the organization and classification of data which the agreement decrees.45

We live, then, in a world of appearances, a world in which reality is not only throttled spatiotemporally as Kant assumed, but arranged in many ways according to the twistings and turnings of language.

In the light of the Whorfian hypothesis, the Kantian system can be seen to be amended in such a way that much of the previously discussed criticisms of Kant are rendered impotent. If the internal workings of language contain an implicit metaphysics by means of which its speakers posit a reality, then it is not surprising that Paton found question with Kant's theory of spatial and temporal intuitions. Paton felt that neither space by itself nor time by itself is a sufficient condition for all sensual knowledge, that only their concatenation--space-time--can serve this function. Such a belief seems to anticipate Whorf's inferred contention that intuitions of space and time together are derivable from the metaphysics implicit in language.

Russell, it is recalled, contended that Kant's system does not state why the mind orders the manifold of sensation as it does and not otherwise. Whorf's hypothesis, however, readily explains this criticism. Different languages comprise different systems of metaphysics. Western languages, because of their great similarity, "cut up reality" in one particular

45 Ibid.
way, but not the only way. For example, it is Whorf's contention that our long standing substance-attribute ontology is a reflection of the subject-predicate pattern inherent in the syntax of Indo-European languages. Our language embodies a "mechanistic" metamathematics. As such:

\[\ldots\] the mechanistic way of thinking is perhaps just a type of syntax natural to Mr. Everyman's daily use of the western Indo-European languages, rigidified and intensified by Aristotle and the latter's medieval and modern followers.47

On the other hand, the Hopi cuts up the world in a different way according to a kind of syntax resembling chemical combination.48

Similarly, it is Whorf's belief that objects are arranged by us in a Euclidian fashion because Euclidean geometry is implicit in Western languages and is, therefore, an integral part of our cultural Weltanschauung. Of this, Whorf says the following:

Just as it is possible to have any number of geometries other than the Euclidean which give an equally perfect account of space configurations, so it is possible to have descriptions of the universe, all equally valid, that do not contain our familiar contrasts of time and space. The relativity viewpoint of modern physics is one such view, conceived in mathematical terms, and the Hopi Weltanschauung is another and quite different one, non-mathematical and linguistic. Thus, the Hopi language and culture conceals a METAPHYSICS, such as our so-called naive view of space and time does, or as the relativity theory does; yet

46 Ibid., p. 258.
47 Ibid.
48 Ibid., p. 58.
it is a different metaphysics from either.\textsuperscript{49}

It is no wonder, then, that Euclidian geometry is as pervasive as it is in thought and perception. In addition, Whorf's theory gives all knowledge, sensory as well as "formal," a single origin in language. Thus, our knowledge of space and time comes from the same place as our knowledge of smell and taste, à la Russell.

In the realm of the understanding, language can again be seen as underlying the Kantian forms, this time the forms (categories) underlying thought as such. We have followed Kant's search for finding pure concepts of the understanding, concepts which act as the rules and criteria of all judgement. Kant believed he found such universal forms of thought in their entirety as given in Aristotelian logic. These forms of thought he called categories, by means of which objects of experience are related, contrasted, and, in general, thought. However, we have seen that the Kantian categories are by no means complete, nor have they the universality which Kant attributes to them.

Whorf seems generally to agree with Kant's method. He, too, senses the necessity of finding the set of rules by which thought proceeds. However, unlike Kant, Whorf realizes that there is something more basic than logic, something which, in fact, presents the logic of thought in entirely different forms in different cultures. This underlying factor

\textsuperscript{49}\textit{Ibid.}, p. 238.
is language. The overt and covert forces within language, the way language fits together, is the way the speakers of that language must fit together the objects of sensation so that these objects may be thought. He maintains:

Actually, thinking is most mysterious, and by far the greatest light upon it that we have is thrown by the study of language. This study shows that the form of a person's thoughts are controlled by inexorable laws of pattern of which he is unconscious. These patterns are the unperceived intricate systematizations of his own language—shown readily enough by a candid comparison and contrast with other languages, especially those of a different linguistic family. His thinking itself is in a language—in English, in Sanscrit, in Chinese. And every language is a vast pattern system, different from others, in which are culturally ordained the forms and categories by which the personality not only communicates, but also analyzes nature, notices or neglects types of relationships and phenomena, channels his reasoning, and builds the house of his consciousness.50

Thus, the internal workings of language not only present a framework in which the manifold or flux of sensation is unified and presented as coherent experience, but may also be seen as presenting the completed list of categories which serve as a set of rules and criteria by which the mind may relate and compare pre-arranged objects of experience. The Kantian thing-in-itself may be viewed as what lies outside the linguistic framework of sensation and thought. In this way, Whorf's metaphysics is greatly similar to Kant's. Both agree that we live in a world of appearances, a world which is pre-formed by certain structuring agents. However, Kant believed that there was but one world of appearances, the universality

50 Ibid., p. 252.
of these appearances being necessitated by the functioning of the human mind. For Whorf, however, there are as many different realities as there are languages; for each language embodies a cultural metaphysics. He states:

The real question is: What do different languages do, not with the artificially isolated objects [of sensation] but with the flowing face of nature, in its motion, color, and changing form, with clouds, beaches and yonder flights of birds? For, as goes our segmentation of the face of nature, so goes our physics of the cosmos.51

Hence, language cuts up nature and gives form to the unformed according to its internal workings. But in what sense can the ordering nature of language be a priori in the Kantian sense of the word? Whorf seems to indicate that the prior existence of some language pattern is both necessary and sufficient to produce some thought pattern. In this sense, language is logically prior to thought, although language itself is learned through experience.

At this point, it must be stated emphatically that the parallelisms I have here outlined between the Whorf-Sapir hypothesis and the Kantian transcendental system are completely inferred. As previously mentioned, Whorf never formally tied his beliefs to Kant's. For this reason much that I have noted lacks a certain degree of specificity. As Whorf's accounts may suffer from too great a generality, so mine must also.

51Ibid., p. 244.
What, then, are the principal improvements of the Whorfian hypothesis with respect to the Kantian system? Firstly, Whorf recognizes not only a relativity of categorical schemes, but presents the basis of a more inclusive set of categories than Kant envisioned. Secondly, Whorf has accounted for not only the genesis of the Kantian categories, but also has explained the Kantian pure intuitions of space and time and made them beliefs understandable in the light of modern science and mathematics. Thirdly, Whorf presents empirical evidence for his beliefs. This evidence, anthropological and linguistic in nature, is designed to show how the workings of language effect a structuring of the universe by its speakers. As Whorf believes that his thesis is scientifically verifiable, we shall shortly embark upon a more empirical investigation of his claims. For the moment, however, it may be seen that the inferred Whorfian reformulation of the Kantian system stands or falls with Whorf's doctrine of linguistic relativity, and more definitely, with his doctrine of linguistic determinism. However, further specifics must await a critical evaluation of Whorf's claims.

3. The Case for Linguistic Relativity and Determinism.

We have seen that the Whorf-Sapir hypothesis has many points in common with the neo-Kantian philosophy of Ernst Cassirer and others. However, Whorf's hypothesis, unlike similar neo-Kantian doctrines, claims to be amenable to empirical investigation. In fact, Whorf believes he has
provided such evidence from the fields of linguistics and anthropology to buttress his contentions.\textsuperscript{52} To render explicit the senses in which language presents the Kantian categories and intuitions of sensation, it behooves us to examine this evidence.

The evidence Whorf presents for his doctrines of linguistic relativity and determinism comes largely from anthropological linguistics. However, evaluation of this sort of evidence is the task of the linguist. What I shall here be concerned with is the philosophical import of Whorf's procedure.

To support his beliefs, Whorf claims to have discovered a way of breaking down language into subsystems composed of "patterns."\textsuperscript{53} Patterns are formed of words that exhibit a mutual "rapport," enabling them to "work together to any semantic result."\textsuperscript{54} As such:

It is this rapport that constitutes the real essence of thought insofar as it is linguistic.\textsuperscript{55}

Words are held in rapport by the workings of invisible "linkage bonds." The centering of words around these linkage bonds become recognizable as what Whorf calls a "covert class."


\textsuperscript{53}Whorf, \textit{op. cit.}, p. 254.

\textsuperscript{54}Ibid., p. 67.

\textsuperscript{55}Ibid., p. 68.
Covert classes differ from common overt classes in that the former are readily seen as part of the grammar of the language in question, the latter being more difficult to observe. Whorf gives the following example which may clarify the differences between covert and overt classes:

A linguistic classification like English gender, which has no overt mark actualized along with the words of the class but which operates through an invisible "central exchange" of linkage bonds in such a way as to determine certain other words which mark the class, I call COVERT class, in contrast to an OVERT class, such as gender in Latin.56

It is Whorf's contention that the aforementioned patterns—discoverable by investigating the covert categories or forms of language—have "meaning," giving vent to a particular conceptual scheme. These "meaningful" grammatical arrangements Whorf calls "cryptotypes."57 To use his example, Whorf observes three classes of Hopi verbs.58 Upon further analysis, he isolates a set of covert categories or cryptotypes which may be seen to underlie their use. He states:

From phenomena of this sort, which are not confined to the inceptive problem but pervade all Hopi grammar, I conclude that there must be to the Hopi speaker a dimly felt relation of similarity between the verb usages in each group having to do with some inobvious facet of their meaning, and therefore itself a meaning, but one so nearly at or below the threshold of conscious thinking, that it cannot be put into words by the user and eludes translation. To isolate, characterize and understand the operation of these dimly felt, barely conscious (or even unconscious) meanings is the object of my further analysis. Such an illusive, hidden, but functionally important

56 Ibid., p. 69.
57 Ibid., p. 88.
58 Ibid.
meaning I call a "CRYPTOTYPE." 59

These cryptotypes, then, convey a hidden meaning displaying part of the overall pattern of the Hopi picture of the universe. However, there are many who disagree with Whorf's imputation of meaning to these covert linguistic categories. Black, for example, maintains:

The chief difficulty lies in the claim that the cryptotypes "have meaning" for the unsophisticated native speaker. Whorf speaks of "a sort of habitual consciousness"; of "a submerged, subtle, and elusive meaning," of a "formless idea," a "rising toward fuller consciousness...of linkage bonds," and so on. But it is hard to believe that the ordinary speaker is aware of a grammatical classification that takes all the virtuosity of a Whorf to discover. I doubt that the average English speaker realizes that the particle "un-" can be prefixed only to transitive verbs of a "covering, enclosing, and surface attaching meaning" that constitutes a prototype. Whorf himself must have the concept since he succeeds in expressing it; but the man in the English street simply uses "un-" in happy ignorance. Here I think Whorf commits the "linguist's fallacy" of imputing his own sophisticated attitudes to the speakers he is studying. The heuristic value of the notion of a cryptotype is manifested in its capacity to induce verifiable predictions; the rest is mythical psychology. 60

There is, this investigator believes, a great deal in what Black has to say. Whorf needs to show further proof for the contention that these cryptotypes have meaning. Even if linguists universally agreed on the imputation of meaning to a cryptotype, Whorf's claim that such a meaning is part and parcel of an implicit metaphysics would remain unsubstantiated.

59 Ibid.

60 Black, op. cit., p. 247.
Let us examine more closely Whorf's belief that we "cut up nature, organize it into concepts" by way of language. He supplies us with two kinds of proof for this contention. First, we are presented with data concerning the Nootka language of a certain Vancouver Island Indian culture. Whorf points out the fact that in this language a single word will often express what in English will require a complete sentence to be intelligible. For example, the English sentence, "He invites people to a feast.", in Nootka, would be the single word, "tl'imshya'isita'itlma," literally translated as "Boiled eaters go for he does." Another example is taken from the Apache language. It is seen that the English sentence, "It is dripping spring," when literally translated from an equivalent Apache expression, becomes "Whiteness moves downward." From these and other examples, Whorf draws the conclusion: "How utterly unlike our way of thinking." According to Whorf:

These examples show that some languages have means of expression—chemical combination, as I called it—in which the separate terms are not so separate as in English but flow together into plastic synthetic creations. Hence, such languages, which do not paint the separate-object picture of the universe to the same degree as English and its sister tongues, point toward new types of logic and

61 Whorf, op. cit., p. 213.
62 Ibid., p. 243.
63 Ibid., p. 241.
64 Ibid.
possible new cosmical pictures.\textsuperscript{65}

Thus, literal translation is supposed to indicate how diverse languages "cut up" or "segment" the universe in different fashions. In this way language embodies a metaphysics partially explicable by such translations.

A second class of proof concerns the referent categories and names a particular language may apply to phenomena. Whorf seems most interested in cases in which one language has a single category or name for something while another language has more than one (i.e., different) categories for referring to the same thing. For example, Whorf shows that in Hopi there is a single word for all flying things except birds.\textsuperscript{66} Where speakers of English say "aviator," "butterfly," and "airplane," the Hopi can use only a single word. Another example of this is noted by Brown.\textsuperscript{67} In this case it is found that the Eskimo lexicon contains three words to denote different kinds of snow for which English does not have their single-word equivalents. It seems we use "snow" for all three. From these and other examples of names and lack of names, categories rich in distinctions and poor in distinctions all differing from what is found in English, Whorf would have us believe that speakers of diverse languages see and understand entirely different relationships among

\textsuperscript{65}Ibid.

\textsuperscript{66}Ibid., p. 209.

\textsuperscript{67}Brown, \textit{op. cit.}, p. 234.
phenomena than we do. Such differences, he maintains, again show how language contains hidden metaphysical schemes.

Let us now examine the grounds upon which Whorf's "proofs" may be seen to support his thesis; that language "cuts up" and "segments" reality and imputes a "metaphysics" to its speakers. Assessing Whorf's use of literal translation, Brown says the following:

Perhaps Whorf's Indian premises ought to be applied to French, German or Latin, and we should all speak of psychological differences between peoples who put adjectives before nouns and those who put them after.68

As any literal translation of German will show,69 the structural variance between literally translated German and English is practically as great as between Hopi and English. Are we to assume, on the basis of differently structured grammar, that the German people have a distinctly different world view than we do? By Whorf's own admission, however, we all share a common Western Weltanschauung. Thus, it seems that Whorf allows the products of sympathetic translation to be admissible as evidence for his contention is some cases, but not in others. We must agree with Brown that:

We do not have the basic knowledge in psychology and language that would enable us to decide intelligently on the premises that ought to underlie translation. The evidence of the literal translation does not establish linguistic relativity. The relativity is assumed in the premises underlying Whorf's "unsympathetic" translations.70

68Ibid., p. 233.
69Ibid., p. 233.
70Ibid., p. 232.
As such, Whorf may be once again guilty of what Black terms the "linguist's fallacy," that is, reading attitudes into the speakers of the languages under study.

What are we to make of the cases Whorf cites where certain languages contain particular names and referent categories for phenomena that other languages do not classify or name in the same way? Does Whorf believe that the Hopi, whose language contains no distinguishing names or categories for the English "butterfly," "aviator," or "airplane," does not cognitively distinguish between these three phenomena? It may be seen, to use another example, that although English presents no formal words to distinguish between types of snow as do Eskimo languages, we have no difficulty recognizing and conceptualizing different types of snow. In fact, Brown points out, children readily identify many varieties of snow; i.e., hard-packing, soft-packing, sleigh-riding, etc. Moreover, skiers identify granular, powder, "sugar," and "good-tracking" snow. Aside from the obvious perceptual distinctions between butterflies, airplanes, and the like, there seems to be no reason to assume that the Hopi is unable to distinguish perceptually or conceptually between these "flying things" in spite of the fact that his language makes no provisions for such distinctions. In fact, there seems to be universal agreement among linguists that equivalent phenomena can be recognized by speakers of any language.\footnote{Ibid., p. 233.} \footnote{Ibid., p. 236.}
Whorf's error may again be the "linguist's fallacy."

Another pertinent criticism of the Whorfian hypothesis in either form of presentation concerns the idea of Weltanschauung. According to Whorf, a particular language embodies an implicit metaphysics which, in turn, gives vent to or determines the world view or Weltanschauung of its speakers. However, it seems quite peculiar that within the course of history, the speakers of SAE73 (Standard Average European—the similarity of Western languages allows them to be lumped into one group) have never universally agreed on any philosophy nor subscribed to any one world view. What, then, is the metaphysics inherent in SAE? What is the Western Weltanschauung? The philosophy that Whorf professes to discern in SAE is not the unformulated world view of the layman or the man in the street, but is a tintype of Newtonian scientific theory. This, Whorf believes, is our particular Weltanschauung. It is here that Max Black introduces a salient criticism:

To the contention that this is the metaphysics embodied in the western languages (only awaiting formulation by the analyst) the sufficient answer is that Descartes—another "standard average European"—was led to a metaphysical system radically different. Languages that both Hume and Hegel could use with equal fluency can hardly embody a unique philosophy.74

In what sense, then, can we be said to have one world view?

73 Whorf, op. cit., p. 138.
74 Black, op. cit., p. 254.
In addition, if the doctrine of linguistic determinism is accepted, one would be hard put to account for the presence of such intellectual giants as Einstein, Whitehead, and Bergson; for they were able to compose philosophical systems clearly antagonistic to Whorf's "Newtonian Western Weltanschauung." Moreover, it is indeed a wonder how Whorf himself was able to escape the linguistic "thought-chains" of his native English and understand the linguistic and thought processes of the Hopi Indians, the culture from which most of his inferences are drawn.

It is, of course, an obvious fact that a particular language and vocabulary is imposed upon the minds of children by parents of a particular culture. In this sense a kind of determinism exists; for the linguistic behavior of the parent exists before that of the child. However, Brown points out:

Cats are called "cats" and dogs "dogs," but, in addition, the former are fed milk while the latter are fed bones. The referent categories revealed by the child in his naming behavior could have been learned from the non-linguistic discriminating behavior of his parents.75

Thus, it is safe to say that a child inherits a language (vocabulary and grammar) from his parents, but this is a far cry from the contention that categories of thought are inherited in the same way.

This brings us to perhaps the most cogent criticism that can be levelled against the Whorf-Sapir hypothesis as it stands.

75Brown, op. cit., p. 260.
Whorf does not distinguish operationally between the thought and language in question. Until this is done it is impossible to fit any kind of empirical evidence to his hypothesis. If thought is defined in terms of language, which it seems to be for Whorf, then the connection between the two is one of logical necessity. It is therefore not surprising that Whorf found his convictions so convincing.

To render Whorf's hypothesis amenable to empirical testing it is necessary to operationally define both thought and language and measure their relationship. There is a certain sense of the relativity thesis that is established on this basis. If "language" is defined as a formal system (phonology, morphology, and grammar), and "thought" as a set of categories serving as rules for naming, the thesis that language and thought covary is established if it is shown that formally distinct languages are also semantically distinct. Brown believes that there is ample evidence that this is true on the level of the lexicon and of certain grammatical categories.76 The evidence Brown presents for his belief leans heavily upon a study made by Zipf in 1935.77 Compiling lists of writings in Chinese, Latin, British and American English, Zipf showed that there exists a statistical tendency in language for the length of a word to negatively correlate with its frequency of usage. Examples of this phenomenon are

76 Ibid., p. 261.
77 Ibid., p. 235.
very common. For instance, common names are shortened to nicknames. "Television" has been shortened to "video" and finally to "T.V." In general, then, as a word becomes more commonly used, it tends to become shortened. What is here important to note is that Zipf's correlation greatly bears upon Whorf's contention. Of this Brown states:

Suppose we generalize the finding beyond Zipf's formulation and propose that the length of a verbal expression (codability) provides an index of its frequency in speech, and that this, in turn, is an index of the frequency with which the relevant judgements of difference and equivalence are made. If this is true, it would follow that the Eskimo distinguishes his three kinds of snow more often than Americans do.78

Thus, Zipf's correlation gives substance to a certain sense of linguistic relativity. According to this view, a given language does not determine its speakers to think or perceive according to certain patterns, but favors or encourages the discrimination of certain patterns over others. An Italian, for example, whose language makes no provision for the recognition of many types of snow, can discriminate among as many varieties of snow as can the Eskimo, whose language contains such provisions. The Italian, however, is not prone to make such discriminations. Swanson sums up this view as follows:

For although in Italian or English we could, by means of circumlocution, identify the different kinds of snow, the absence of a short and readily available term for these categories [consistent with Zipf's law]

78Ibid., p. 236.
discourages us, as it were, from doing so.79

Furthermore, Henle states:

The question then becomes one of whether knowing an item of vocabulary— at least one which has application to sense experience— constitutes a set directed toward perceiving in terms of this word. The existence of such a set would mean noticing those aspects of the environment to the application of the term and tending to neglect others.80

This sense of linguistic relativity seems quite reasonable. However, it is a far cry from what Whorf has claimed.

Brown has devised a method for testing a more exciting form of the relativity thesis. He would proceed by defining "language" so as to include semantics and defining "thought" in terms of some nonlinguistic behavior. In general the thesis here would be that some nonlinguistic evidence of thought covaries with some linguistic evidence. For example, it might be maintained that making statues of justice goes with the membership of the word with this concept in a form class that has generally the "object" or "thing" semantic. The relativity thesis could then be checked by looking at the statues and form classes of social groups and of individuals.81

As regards determinism:

If an attempt is made to go beyond relativity to determinism we see at once that there are two possible kinds of chronological priority the linguistic form might have— either historical or biographical. One could see whether the linguistic practice preceded the making of statues in the history of a group and one could see whether knowledge of the linguistic practice came before the inclination to make a statue in the life of the individual.82

80 Henle, op. cit., p. 6.
81 Brown, op. cit., p. 262.
82 Ibid.
However, it is significant that Brown states:

Very few independent definitions of language and thought, which are of the sort required by this kind of relativity and determinism, have been offered. . . . I don't know of any attempts as yet to show that an independently defined linguistic has either historical or biographical priority over the thought pattern it is supposed to determine. While this more ambitious form of relativity seems to be what many anthropologists have in mind they have scarcely taken the first step toward demonstrating it.83

It is seen, then, that only after many studies of the type Brown proposes, will it be possible to suggest which features of grammar might in general be expected to correlate with language. In so doing, the philosophical maxim "correlation does not imply causality" must be taken heed of.

How, then, stands the case for linguistic relativity and determinism? Not too good--in its Whorfian form. The generality of Whorf's hypothesis, coupled with the unprovable form in which it is presented, prevents empirical testing. Moreover, the failure of Whorf's doctrines to stand up to philosophical examination casts grave doubts upon its validity. However, a mild form of the relativity thesis, which carefully discriminates between the language and thought in question, seems to be acceptable to many linguists and philosophers. It is important to note that this sense of the relativity thesis is believed secure enough to overthrow the traditional "copy" theory of language. However, it is generally agreed that more data is needed in order to make any stronger assertions in favor of Whorf's contentions. Future studies

83Ibid.
might reveal such meaningful relationships between language and thought, but it is safe to say that they will not maintain the more extreme kind of relationships that Whorf envisioned.
PART THREE

A BRIEF VIEW OF
A DIFFERENT APPROACH: LINGUISTIC PHILOSOPHY
III. A BRIEF VIEW OF
A DIFFERENT APPROACH: LINGUISTIC PHILOSOPHY

A. Introduction

We have seen that the Whorf-Sapir hypothesis seems to bolster the Kantian system and account for many of its inconsistencies. However, it seems that the form in which it is presented and, indeed, much of the matter of its beliefs, prevent it from having much objective merit as a scientific hypothesis or as a philosophical system. Nevertheless, Whorf's writings are not of little value. We have seen that their reformulation by Brown and others have raised a moderate form of the Whorfian claim to the status of a tenable scientific hypothesis. In addition, Whorf's writings have motivated linguists, anthropologists, and psychologists toward research in the field of psycho-linguistics—that hybrid discipline which investigates psychologically the connection between language and thought. As regards philosophy, however, there is yet another approach to the problem of the relation of language to thought which remains to be investigated—viz. linguistic philosophy. To this we will now proceed.

At the turn of the century many philosophical disciplines broke away from the main subject area of philosophy and became self-sufficient, empirical, scientific domains. These sciences, as well as the many others already in existence,
boasted a distinct subject matter within relatively well defined limits. The newly formed science of psychology, adopting the scientific method of inquiry, invaded the very strongholds of traditional philosophical subject matter. Furthermore, progress in these fields showed that philosophy could not hope to compete with the methods of empirical science. What, then, was left for philosophy? What was to be philosophy's subject matter and its limits in the light of these new and well defined sciences?

At this time a new sphere of philosophical study emerged. It came as almost a revelation to philosophers searching for the proper area in which to direct their activities. This new philosophical interest centered around the idea of "meaning"—that sense of meaning embodied by language in its capacity to permit communication. As such, language presents the basic building blocks of meaning which, in its use, can be studied in its most highly developed form. In this regard, philosophers carefully distinguished between an object-language and a meta-language. An object-language is the common language of a particular discipline. A meta-language is a language developed for the purpose of analysing the meanings and uses of words expressed by the object-language. As such, philosophy witnessed a shift of emphasis from the strict study of ethics, theology, etc., to the study of meta-ethics,

meta-theology, etc. Thus, philosophers proceeded to logically clarify and illuminate the ends of language and the ways in which language is able to achieve these ends. The linguistic philosopher, then, scrutinizes all statements—those made by theologians, mathematicians, scientists, philosophers, etc., past and present—bringing his new techniques to bear on them as well. In time, linguistic significance became the primary subject matter of contemporary philosophy.

Once stated, it soon became apparent to many philosophers that this new understanding of the proper subject matter of philosophy was "new" in its explicitness only. The history of philosophy since the time of Socrates, whose passionate interest was in the meaning of "Justice," "Knowledge," and "Good," could also be interpreted as a quest for meaning. Thus, the methods and subject matter of traditional philosophy was not entirely alien to the new formulation of philosophy's sphere of interest.

As more and more philosophers joined the bandwagon of linguistic philosophy, the method and goals of their pursuit solidified. Instead of attempts at synthesis typical of the philosophy of the past, linguistic philosophy unfurled the banner of analysis. The function of philosophy under the new auspices, then, was to engage in the analysis of the meaning and structure of language. As such, the relation of thought to language is much akin to this pursuit. Neo-Kantians contended that Kant's thesis is greatly supported if language is seen to present the perceptual patterns of experience and
the categories of thought. Whorf and Sapir maintained a doctrine of the relation of language to thought that infers a similar assertion from data in anthropology and linguistics. However, linguistic philosophers, in their study of meaning and language, present other approaches to the neo-Kantian contention of the connection between language and the philosophy of Kant.

In this paper, I will consider one such approach, that of P. F. Strawson. Strawson's philosophy, although structurally similar in principle to that of Kant and his followers, differs mainly as to the methods employed in analysis and the evidence Strawson submits for his beliefs. In this sense Strawson's philosophy offers a different approach to the problem at hand. Let us proceed to investigate Strawson's contention with an eye toward its relevance to Kant's hypothesis.
B. Location of Particulars

Before exploring that part of Strawson's philosophical endeavor pertinent to the matter at hand, it may be well to outline first some epistemological considerations important as background to the proper understanding of his philosophy.

The common man has long believed that everyday things, ordinary sorts of physical objects that are freely recognized and commonly talked of in his social milieu, are indeed the most real things imaginable. The eminent Dr. Johnson expressed this belief succinctly by kicking a now famous stone to show its reality. We must agree that it is difficult to doubt the full existence of something publicly observed, felt, and discoursed about. Now we must ask, do we know these ordinary, public objects only as subjective sense data, or do we know and understand subjective sense data by means of objective public objects? Unlike Dr. Johnson, Berkeley maintained the former thesis. Impressed with the fact that we know external objects only medially through the senses, Berkeley embarked upon a philosophical venture that would deny their existence. However, in his quest to prune bare sense data from external objects, Berkeley had continually to refer to public objects to locate these sense data. In describing a private sense datum, one must resort to describing what is publicly understood as a color, sound, smell, etc., if one is to communicate. When one tries to describe a particular private sensation, one finds that reference to a particular public thing—a color, object, etc.—best identifies this sense datum. It seems,
then, that private sense data are identified and rendered communicable (objective) by reflecting them in public objects. As Berkeley succeeded in communicating his impressions, it is assumed that he as well must have relied upon public external objects as the locus of objective (communicative) reference to private sensations. Now, then, is it possible to explicitly doubt the existence of external objects if one is logically dependent upon them for communication? Thus, it seems that Berkeley's quest is doomed to failure; for we must assume the latter hypothesis—that private sense data are understood (rendered intelligible) only in terms of public objects—in order to prove the former.

Nevertheless, there have been philosophers of this century who have tried to isolate private sense data from public objects and to understand science as that pursuit which merely classifies and systematizes regularities in this bare stream of raw experience. This doctrine may be called positivism, or radical empiricism. However, sense data seem inseparable from the objects by way of which sensations are presented. We cannot feel unless there is an object blocking the path of our hand. Similarly, there must be something present to absorb or reflect light for us to see. It seems, then, that the only way to make sense out of the statement "raw experience exhibits regularities," is to understand "raw experience" as ordinary experience; our everyday experience which indeed exhibits regularities. However, this is not the sense that was intended. As defined, raw
experience must be unstructured. Accordingly, it is important to note, in the words of Quine, that

Raw experience simply will not, of itself, cohere as an autonomous domain. References to empirical objects is largely what holds it together.2

Thus, objects are inseparable from experience. In addition, external objects, or rather reference to external objects--since in memory they are no longer present as objects--gives us continuing access to the realm of past impressions. In fact, it is believed that external objects and reference to external objects is what gives continuity to experience past, present, and future.

Let us now investigate what it means to refer to external objects. It is significant that Chisholm3 has found that memories are traces not of past sensations but of past conceptualization and verbalization. This seems to be a fairly plausible hypothesis. In reflecting upon yesterday's weather, I recall the fact that it was "raining." I remember that the sky was "grey" and the rain felt "wet." However, I have not here recaptured the feelings (sensations) of the day's greyness or wetness. I may try to imagine being "wet" or seeing "grey," but such an attempt can only begin to approach the vivacity of the original. Today's hot sun and blue sky further mock this endeavor. In remembering, then, I have substituted the linguistic entities "wet" and "grey"


for yesterday's particular bundle of sense data. We may now see that much of present experience, past experience, and much that is anticipated as future experience, is bound up with verbalization and conceptualization. Reference to external objects—hereafter called particulars—is thus intimately related to the medium in which such reference takes place, i.e., language. One of the functions of language, then, is to refer to particulars. General reference and identifying reference to particulars are made through its office. Such reference to particulars, it is believed, allows for the continuity of our experiences.

What may be inferred from the previous statements? If the continuity of our experience is based upon reference to particulars and if, in conception, language presents the verbal patterns in which such identifying reference takes place, it seems that we may rightly infer that an investigation of language—the conceptual use of language—might reveal a conceptual scheme which would explain how our reference to particulars, and, therefore, our coherency of experience, proceeds. This is what P. F. Strawson has attempted in his book Individuals.\footnote{P. F. Strawson, Individuals: An Essay in Descriptive Metaphysics (London: Methuen and Co. Ltd., 1959).}

Strawson terms his endeavor "descriptive metaphysics"\footnote{Ibid., p. 9.} and claims that it is in the Kantian tradition of...
transcendental philosophy. As such, his aim is to describe the actual structure of our thoughts about the world. He is concerned with isolating and exhibiting certain entities that must be recognized as playing a fundamental role in all our thought about things and events. It is not surprising that these basic entities are found to be particulars. To clarify and understand the role played by particulars, Strawson begins his treatment of the subject with an investigation of what it means to identify.

It is first noticed that there is a speaker's and a hearer's sense of the term "identify." 6 A speaker may make an identifying reference to a particular. If the hearer knows which particular is being referred to, he is able to "identify" that particular. With this sense of "identity" rendered explicit, Strawson proceeds to explore the anatomy of identification of particulars with an eye toward locating the class or classes of particulars that are most basic in thought.

It must be immediately recognized, Strawson argues, that there is a sense of identification which must be eliminated as a non-important and trivial case. This is called "story relative identification." 7 It occurs when a particular is identified in an immediate speaker-given context. It is trivial because the particular is identified in that context

6 Ibid., p. 16.
7 Ibid., p. 18.
and that context only, and is unrelated to the history and experience of the hearer. For example, if a speaker were to relate the story of "the three bears" to the hearer, identification of "Goldilocks" would proceed from the story itself, irrespective of the hearer's history or background. A criterion must be invoked to render this sense of identification inappropriate to identification in general. The forthcoming criterion states that the particular must be able to be placed in the hearer's own picture of the world directly, independent of the speaker.

These considerations lead Strawson to a discussion of demonstrative and non-demonstrative identification of particulars. Demonstrative identification denotes objects directly given to us, comprising what Wittgenstein termed "ostensive definition." Children learn their first words by way of ostensive definition. This process proceeds when a parent points to a door, says "door," and asks the child to do the same. In this way a child learns the names of things. As such, demonstrative identification poses no real problems to the identification of particulars in general. It fits well within the bounds of the formerly stated criterion. However, demonstrative identification accounts for a small number of cases of what is understood by identification. We may have only so many particulars directly confronting us at

---

8Ibid., p. 19.

a specific time. Accordingly, unless there are cases of non-demonstrative identification of particulars, there would be very little that could be truly communicated. In most communication, then, identification of particulars proceeds by way of non-demonstrative identification. This occurs when demonstrative identification is impossible because the particular to be identified is not sensibly present.

It has been argued that we can never be sure that a non-demonstrative identification succeeds in individuating a specific particular, for there is always the chance of finding duplication in the universe. As non-demonstrative identification can proceed only with the backing of general descriptions of the particular in question, there is some question whether any number of descriptions can succeed in individuating a specific particular. For example, there might be another particular answering the same descriptions as the particular the speaker has in mind existing in another part of the universe. Strawson counters this argument with the suggestion that non-demonstrative identification may rest on a basic demonstrative element. 10 He finds it necessary to admit that we are each in possession of a unified system of spatial and temporal relations in which every particular is uniquely related to every other. 11 By demonstrative identification we can determine a common point of spatial and temporal

10 Strawson, op. cit., p. 22.
11 Ibid., p. 25.
reference, and from this it is possible to deduce the location of other particulars in space and time relative to our reference point. Thus, Strawson, as well as Kant, found a peculiar comprehensiveness and pervasiveness associated with spatiotemporal relations. Accordingly, he states that space and time serve as the framework in which we may organize individuating thought about particulars. Thus, the system described is a transcendental system in sense of describing our one of many possible schemes of understanding the world. As with Kant, the knower shapes and forms the objective world according to his ways of knowing. Strawson's endeavor is concerned with exhibiting our peculiar scheme of understanding the world "out there." According to Strawson, our identification of particulars, of particular things and events in a spatiotemporal framework, allows for our single, unified picture of the world.

If it is conceded that we possess such a system, a conceptual scheme of spatiotemporal relations, it is necessary that reidentification of particulars or acknowledgement of sameness of particulars, is accounted for. This is achieved with due regard to the skeptic by recognizing the following facts: our observation is limited so that the entire spatiotemporal framework is not presented to us at any one instant; there is no part of it that we can continuously observe; and we do not occupy a fixed position in it. Thus, our system

12Ibid., p. 31.
must lean heavily on what Strawson terms "qualitative recurrences." These are separate observations of the same patterns and arrangements of objects. In addition, it can also be shown that the reidentification of places is not different from the reidentification of things. There is, in fact, an interplay of the two.

Having described a transcendental, unified, spatiotemporal system as conditioning our thoughts of identification of particulars, Strawson endeavors to investigate the possibility of finding that class or those classes of particulars upon which this system of particulars is based. It is found that certain particulars exhibit identifiability-dependence to other particulars. As an example, the case of "private particulars" is examined. Private particulars are particulars of mental events and private sense data. For example, a buzzing sound may exhibit identifiability-dependence to the source of buzzing; a bee, perhaps. More basically, such sense data may be traceable to the self-consciousness of the hearer, the identifiability-dependence of the buzz to the agent hearing the buzz, the sensing person. Thus, these types or categories of particulars are mainly dependent upon other particulars, namely persons who have such "feelings," and therefore display identifiability-dependence to a set of particulars called persons. Perhaps this is what Kant had in mind in his belief

\[13\] Ibid., p. 33.

\[14\] Ibid., p. 34.
that "I think" must accompany all representations. One group
of classes displaying identifiability-dependence are the
classes of theoretical constructs and unobservables in
general. These are the postulated entities of Physics,
Political Science, etc. Their identification rests upon the
identification of grosser, observable bodies.

There are, however, many other classes of particulars
that may display identifiability-dependence. At the same
time, it becomes evident that any particulars that can be
directly located without the aid of or reference to any other
particular are the basic particulars that we are searching for.
To expedite this search, Strawson recognizes two types or
categories of publicly observable particulars.15 These are
events and processes (states and conditions) and material
bodies. This somewhat Whiteheadian16 division bears fruitful
results. It is observed that the first category of particulars,
events and processes, suffers from a lack of framework
building adequacy. They seem to show a dependence upon more
enduring entities, namely the material objects characterizing
the particular events and processes. They are the White-
headian eternal objects in the guise of material objects.

Thus, material bodies appear to be the basic particulars
for which we are searching. They are observable, diverse,

15Ibid., p. 45.
16Whitehead recognized two "realms" of actuality. These
were eternal objects (forms) and actual entities (process).
Whitehead: An Anthology, ed. by P. S. C. Northrop and Mason
stable, and enduring. They are basic constituents which secure for us one common and continuously extendable framework of reference—the framework of spatial location.

From our previous discussion it can be seen that Strawson's conclusions are not at all surprising. What is of great importance to our study is the fact that Strawson was led to recognize the existence of a conceptual scheme, a spatiotemporal framework which we all must possess as a condition of particular identification and thus a condition of our experience being coherent.

However, let us now probe deeper into Strawson's conceptual scheme to ascertain the exact nature of this concept. He maintains:

"... It cannot be denied that each of us, at any moment, in possession of such a framework—a unified framework of knowledge of particulars, in which we ourselves, and usually, our immediate surroundings have their place, and of which each element is uniquely related to every other and hence to ourselves and our surroundings. This framework we use for this purpose: not just occasionally and adventitiously, but always and essentially. ... when we become sophisticated, we systematize the framework with calendars, maps, co-ordinate systems; but the use of such systems turns, fundamentally, on our knowing our own place in them; though a man may lose his place and have to be told it. ... the system of spatio-temporal relations has a peculiar comprehensiveness and pervasiveness, which qualify it uniquely to serve as the framework within which we may organize our individuating thought about particulars. Every particular either has its place in this system, is of a kind the members of which cannot in general be identified except by reference to particulars of other kinds which have their place in it; and every particular which has its place in the system has a unique place there." 17

He further states:  

We may agree, then, that we build up our single picture of the world, of particular things and events, untroubled by possibilities of massive reduplications, content, sometimes, with the roughest locations of the situations and objects we speak of, allowing agreed proper names to bear, without further explanation, an immense individuating load. This we do quite rationally, confident of a certain community of experience and sources of instruction. Yet it is a single picture that we build, a unified structure, in which we ourselves have a place, in which every element is thought of as directly or indirectly related to every other; and the framework of the structure, the common, unifying system of relations is spatiotemporal. By means of identifying references, we fit other people's reports and stories, along with our own, into the single story about empirical reality; and this fitting together, this connexion, rests ultimately upon relating the particulars which figure in the stories in the single spatiotemporal system which we ourselves occupy.18  

What Strawson has found is a necessary spatiotemporal framework which we all must possess. This "conceptual scheme" is reminiscent of the priority of space and time in the Kantian system. If you recall, Kant maintained that space and time are pure forms of intuition--subjective mental forms--which must be presupposed for a thing to be known objectively to the inquiring mind. Strawson's formulation gives substance to this belief. Let us further investigate this notion.  

Kant was troubled with the problem of explaining how subjective sense data can become objectified. If we merely received impressions or experienced modifications of consciousness, we would be shut up in our own subjectivity, each with his own uncommunicable solipsistic world. Our sensations, Kant believed, must be objectified, must be rendered

18 Ibid., p.24.
communicable and intelligible for knowledge. Kant's solution to the problem of how such objectification occurs in sensibility is presented in the Transcendental Aesthetic. Briefly, Kant believes that the mind contributes form to the matter of sensation. These forms are pure intuitions of space and time. As such, sensations are objectified by the mind's spatiotemporalizing these "raw feels." The mind, then, superimposes the forms of space and time upon the manifold of sensation allowing for our objective knowledge of particulars in space and time.

In this connection, Strawson asks: "What are the general conditions of identification of particulars?"¹⁹ This question may be construed as a typically Kantian question; for, like Strawson, Kant was concerned with the conditions that must be presupposed for objective knowledge. As such, Strawson's philosophy concerns itself with typically Kantian problems viewed from a linguistic perspective. Accordingly, both Kant and Strawson recognize a special priority given to spatial and temporal considerations in perception and cognition. Each finds space and time the key to the problem of objectification.

However, differing from Kant, Strawson believes that the clue to the problem of explaining how private sense data are objectified lies in language, the medium of objectivity. It is also seen that the paradigm case of objectivity is our

¹⁹Strawson, op. cit., p. 23.
agreement in identifying and referring to particulars. As one of the functions of language is to refer, Strawson investigates the linguistic process of referring. Proceeding accordingly, it is found that we must recognize the existence of a conceptual scheme which we all must possess as a condition of identifying reference to particulars. This scheme is a unified spatiotemporal framework in which particulars, ourselves, and our immediate surroundings, have their place. Thus, space and time serve as the framework in which we may organize our individuating thoughts about particulars. This conceptual scheme, then, must be presupposed as a condition of objectivity, in the sense that the objectivity of particulars logically involves the necessity of their location in our spatiotemporal framework.

It may be seen that although Strawson and Kant attack the problem of objectivity from different perspectives, the results of their endeavors appear greatly similar. However, in the light of our previous discussion of criticism of the Kantian hypothesis, certain doubts have emerged as to the validity of Kant's theory of perception. Although Strawson makes few explicit references to the Kantian system, it would behoove us to examine the Strawsonian contention with an eye toward improvements which may be made on the doctrine set forth in the Transcendental Aesthetic. Such improvements would make for a more secure version of Kant's philosophy, giving it a base in language and linguistic philosophy and rendering it intelligible in the light of the previously
discussed criticism. Let us proceed to this attempt.

It is immediately to be noted that Strawson finds space and time to be part of a conceptual scheme. Kant, on the other hand, maintained that neither space nor time are concepts, but are intuitions. At first glance there seems to be a basic disagreement between these two doctrines. Kant believes that we cannot represent to ourselves the absence of space or time. We can successfully think away objects, but not their spatiality or temporality. Thus, space and time are pure intuitions. However, Strawson states:

... no system which does not allow for spatial and temporal entities can be a system which allows for particulars at all, or at least can be understood by us as such. This point is the same as that made by Kant in saying that space and time are our only forms of intuition.20

It seems, then, that the Strawsonian conceptual scheme and the Kantian theory of sensibility do not clash as dramatically as it first appeared. It is true that Strawson deals in conception—the conceptual use of language in reference—while Kant deals in sensation and sensibility. However, the Strawsonian conceptual scheme is as much pertinent to perception as it is to conception. We could not, for example, perceive a particular objectively without giving it a place in our spatiotemporal framework. Thus, both Kant and Strawson seem to be saying the same thing; that space and time must be presupposed as a condition of objective knowledge of a particular.

20Strawson, op. cit., p. 119.
However, Kant maintained that space is the form of outer intuition and time the form of inner intuition. As such, all representations are in inner sense, of which time is the form; only some representations occurring in outer sense in which space is the form. On the other hand, Strawson presents us with a formal spatiotemporal framework in which space and time are of equal importance. In this connection, Strawson asks: "Could there be a scheme, providing for a system of objective particulars, which was wholly non-spatial?" Indeed, the second chapter of *Individuals* explores the possibility of a no-space world. This attempt, Strawson admits, fails due to the impossibility of arriving at a scheme that would explain how recurring auditory objects could be individuated. However, these considerations aside, it is important to note that Strawson believes that space and time must work together as a spatiotemporal framework. He states:

We operate with the scheme of a single, unified spatiotemporal system. The system is unified in this sense. Of things of which it makes sense to inquire about the spatial position, we think it is always significant not only to ask how any two such things are spatially related at any one time, the same for each, but also to inquire about the spatial relations of any one thing at any moment of its history, when the moments may be different. Thus we say: A is now in just the place where B was a thousand years ago. We have, then, the idea of a system of elements every one of which can be both spatially and temporally related to every other.22

If you recall, this was Paton's point of criticism of the

21Ibid., p. 62.
22Ibid., p. 31.
Kantian doctrine. He similarly called for the togetherness of space and time. Thus, the togetherness of space and time as a spatiotemporal framework seems to be somewhat of an improvement upon the Kantian contention, while still retaining the Kantian meaning.

As previously discussed, one of the faults found with the Kantian theory of sensibility concerned his notion of geometry. According to Kant, our pure intuition of space is responsible for the certainty of geometry, in this case, Euclidian geometry. It has been pointed out that Kant was wholly unaware of the possibility of constructing non-Euclidian geometries as certain and as true of the world as his own Euclidian. The idea that geometry and mathematics may be presented as formal systems without regard to empirical considerations was unknown at Kant's time. Many believe Kant's theory of mathematics and geometry is an integral part of his system. The failure of this theory to stand up to modern developments in mathematics and geometry, it is believed, casts grave doubts upon the entire Kantian theory of knowledge. Whether or not this strongly critical view of Kant is philosophically tenable will not be decided here. It is, however, important to note that Strawson's formulation avoids Kant's assumptions of the nature of mathematics and geometry. While Kant maintains that pure intuitions of space and time account for mathematical and geometrical certainty, Strawson makes no such demands upon his spatiotemporal framework.
Let us now investigate Russell's criticism of the Kantian system as it pertains to Strawson's contention. Russell, it is recalled, asked for an explanation of why particulars are positioned the way they are in time and space and not otherwise. It was mentioned that Kant never seemed to sense the importance of such an explanation. Accordingly, it is not enough to say that we contribute space and time to the matter of sensibility; some additional explanation is needed to explain why certain particulars are spatiotemporally related to others the way they are.

Kant maintained that the manifold of sensation is unified (objectified) by the mind's application of the pure forms of space and time. To be known as objects, the manifold must first be spatiotemporalized. What lies outside of objective perception is the manifold of things-in-themselves. Things-in-themselves are the matter of our sensations, the substratum of sensibility forever unknown to the inquiring mind. It is not surprising, then, to see that one cannot explain or defend Kant's system against Russell's criticism. Space and time give only the form of sensation. On the other hand, the matter of sensation is unknowable. We cannot explain the relation of objects completely on either level. However, Strawson assumes no unknowable substratum of sensation. While Kant assumes an intrinsically unknowable "given," Strawson assumes that the matter of sensation is sense data. Thus, Strawson's formulation provides for the same product of form and matter (perception), while avoiding the pitfalls of
assuming a given unknowable. According to Strawson, then, the peculiar positioning of particulars is traceable to the given and to our linguistic practices of referring.

In summation, both Kant and Strawson deal with a similar problem; how private sense data are objectified for knowledge. Kant maintains the existence of pure spatial and temporal intuitions through which things-in-themselves are spatio-temporalized for objectivity. Time is the form of all intuitions, space only of some. On the other hand, Strawson investigated the media of objectivity, language, with the hope of disclosing a conceptual scheme which we all must possess as a condition of our objective reference to particulars. This scheme was found to be a spatiotemporal framework in which each particular has its place. Moreover, Strawson avoids certain Kantian assumptions which are no longer tenable in the light of modern physics and mathematics. Whereas Kantian philosophy led to the recognition of unknown things-in-themselves, Strawson does without such an ambiguous concept. As such, Strawson's account avoids many of the pitfalls of the Kantian theory of sensibility.

Strawson's philosophy gives substance to Kantian metaphysics while pruning it of many of its untenable assumptions and avoidable consequences. Language is seen to exhibit the presence of a conceptual scheme embodying a spatiotemporal framework. As such, particulars are positioned according to our linguistic practices of referring. Thus, language is again presented as a basis for Kantian philosophy.
Space and time are viewed as embedded within the structure of language, composing a spatiotemporal framework through which our individuating thoughts about particulars and objectification of private sensations are explained.
CONCLUSION

As we have seen, the fundamental problem for Kant is the problem of knowledge; what is knowledge, and how is it possible, what are the boundaries of human reason? In order to answer such questions, Kant believes, we must examine our organs of knowledge, our ways of knowing. We must consider the powers of the mind to attain knowledge, its functions, its possibilities, its limitations. Accordingly, we cannot think unless there is something to think about, and we can have no object of thought unless it is given through the senses, unless the mind is receptive or has sensibility. Sensibility, then, furnishes us with objects of empirical intuition. However, these objects must be thought, understood, or conceived by the understanding for knowledge to occur. The question, then, "How is knowledge possible?" divides into two questions: "How is perception possible?" and "How is understanding possible?".

If you recall, in the realm of sensibility, the matter of sensation is given to the inquiring mind as a manifold of sensation. The mind, however, contributes form to this manifold, unifying (objectifying) it as objects of possible knowledge. These mental forms, Kant maintains, are pure intuitions of space and time. As such, space and time are not
realities existing for themselves, nor are they qualities or relations of things. They are ways our sensibility has of apprehending objects, they are forms or functions of the senses.

In the realm of the understanding, objects must be compared, related, or "synthesized" for knowledge to result. It is Kant's belief that synthesis proceeds by way of a set of formal categories which act as criteria and set of rules for these mental operations. Thus, knowledge occurs through application of the pure concepts of the understanding (categories) to objects furnished us by the senses and perceived as spatial and temporal.

The mind, then, prescribes its laws to nature. The world as we know it is pre-organized according to our ways of knowing. On this view, man is no longer thought of as a neutral observer of reality, related to the world as subject is to object. Instead, man participates in nature, actively organizing and structuring it according to the way he perceives and thinks it. As such, the world as we know it is a joint product of the knower and the known.

In the later nineteenth century and early twentieth century, many philosophers ignored or vehemently criticised these Kantian ideas. Early linguistic philosophers, disavowing themselves from the traditional methods of philosophical speculation, were even more distrustful of the "teutonic" philosophy of Kant and his followers. One commonly held opinion was that of Bertrand Russell. He said the following of Kant:
Hume . . . awakened him [Kant] from his dogmatic slumbers—so at least he says, but the awakening was only temporary, and he soon invented a soporific which enabled him to sleep again.1

While the English speaking world continued to ignore the teachings of Kant, the Kantian tradition had not died in Germany. Agreeing with the basic tenets of Kant's philosophy, Ernst Cassirer, an avowed neo-Kantian, endeavored to rebuild the Kantian scheme in the face of its most devastating criticism. Because Kant had based much of the internal workings of his system upon an outmoded Aristotelian logic and Newtonian science, Cassirer found Kant's system in great need of revision. Cassirer's attempt at revision recognized a new factor serving as a base for Kant's philosophy, a factor which intrigued most philosophers of the day. This factor was language. As such, Cassirer contended that language presents the forms in which the manifold of sensation is objectified. Furthermore, language is seen to provide a more inclusive set of categories by which these objects are "synthesized" for knowledge. Language accomplishes this mission by imbuing its speakers with "perspectives" in which to interpret the world.

However, Cassirer's view, although quite tenacious, admits the impossibility of testing its own hypothesis. If the world appears to us as so many linguistic "perspectives," it necessarily follows that one cannot escape the confines of

his particular perspective adequately to judge the theory under question. In this connection, two linguists, Whorf and Sapir, formulated a hypothesis strikingly similar to Cassirer's view. However, as an improvement over the former thesis, they contended that their beliefs were amenable to empirical proof.

The so-called "Whorf-Sapir hypothesis" may be seen to assert two doctrines: linguistic relativity and linguistic determinism. Briefly, linguistic relativity maintains that a given language embodies a world view—a particular metaphysical pattern in which the "kaleidoscopic flux of experience" is shaped and molded to make for an intelligible world. Determinism goes beyond this belief. It holds that language not only embodies a world view, but perpetuates that view. As such, one's thought is uniquely determined by what one's language allows him to think. Thus, once again language is seen to provide a basis for the Kantian system. In perception and thought the mind is actively engaged in giving form to the formless "raw feels" of experience. Knowledge is seen to arise as a joint effort of the observer and the observed. While Kant held that intuitions of space and time in perception and categories operative in the understanding present form to the world, Whorf maintains that language underlies these Kantian forms.

However, a closer study of Whorf's hypothesis as it is presented reveals certain difficulties which cast grave doubts as to its adequacy. Nevertheless, a mild form of the doctrine of linguistic relativity has approached the status
of a scientific hypothesis in the hands of other researchers. Accordingly, there is reason to believe that language does more than merely mirror or "copy" the world as traditional philosophy had assumed. As such, a given language may be seen to encourage or discourage its speaker's formulation of certain world views or posits of experience. However, this sense of linguistic relativity is far from what Whorf had claimed. As regards Kant, there remains the hope that future studies in linguistics and psycho-linguistics may reveal relationships between language and thought that give further substance to his basic beliefs.

As previously mentioned, early linguistic philosophers, by and large, found Kant's philosophy peculiarly distasteful. Yet, their methods dealt with an area of study pertinent to Kant's doctrines, namely, the analysis of meaning in language. In this connection, several modern linguistic philosophers have found that an analysis of language yields evidence for the belief that we all are in possession of a conceptual scheme by way of which random raw experience is ordered and structured. The relationship expressed here is again the Kantian notion of objectification and synthesis, where the mind is seen to present form to the formless. As such, these modern philosophers have returned Kant to a respectable position in the area of analytic philosophy.

As an example of the presence of Kantian ideas in analytic philosophy, I have presented some of the main points of P. F. Strawson's "descriptive metaphysics." In concept, descriptive
metaphysics mirrors the Kantian attempt at metaphysics, laying bare "the most general structural features of our ordinary thinking about the world."² It is Strawson's contention that objectivity is directly connected to reference to external objects (particulars), which in turn is intimately related to language, the medium in which reference takes place. One of the functions of language, then, is to refer to and identify particulars. Upon analysis of linguistic reference, Strawson is led to the belief that we all possess a conceptual scheme as a condition of particular recognition, i.e., objectivity. This conceptual scheme is seen to be mainly spatio-temporal. Thus, both Kant and Strawson recognize a special priority given to spatiotemporal considerations. Both claim that the key to understanding the question of how sense data are objectified lies in the nature of our mental processes. However, Strawson goes beyond Kant in showing that these mental processes are part and parcel of the workings of our language.

In summation, I have attempted to present the main views of Kantian philosophy as well as how these views have been augmented and substantiated by some recent developments in the general area of philosophy of language. Philosophy of language has attempted to render explicit the true functions of language. In so doing, it has come to the position that

language is more than a mere transparent medium of communication, that it may be regulative or even constitutive of experience. As far as this may be true, the philosophy of language presents a great deal of substance to Kant's basic thought: that the world "out there" is as much a product of the knower as it is a product of the known.
BIBLIOGRAPHY


Miller, Oscar W. *The Kantian Thing-In-Itself or the Creative Mind*. New York: Philosophical Library, 1956.


"Conceptual Categories of Primitive Languages," Science, No. 74 (April, 1931), 560-582.


—. "The Revolution in the Philosophy of Language," Unpublished article, Department of Philosophy, University of Massachusetts, 1962.


Approved by:

Clarence Smith

Richard Hart

J. M. Evanson (chairman)

Graduate Committee

Date: August 19, 1967