AN EVALUATION OF THE FIRST PRINCIPLE OF DESCARTES AND ITS RELEVANCE TO MODERN THOUGHT

Thesis for the Degree of M. A.

MICHIGAN STATE COLLEGE

Paul Manson Hurrell

1952

This is to certify that the

thesis entitled

An Evaluation of the First Principle of Descartes and its Relevance to Modern Thought

presented by

Paul Manson Hurrell

has been accepted towards fulfillment of the requirements for

M.A. degree in Philosophy

Henry S. Leonard
Major professor

Date June 2, 1952

O-169

AN EVALUATION OF THE FIRST PRINCIPLE OF DESCARTES AND ITS RELEVANCE TO MODERN THOUGHT

AN EVALUATION OF THE FIRST PRINCIPLE OF DESCARTES AND ITS RELEVANCE TO MODERN THOUGHT

By

Paul Manson Hurrell

A THESIS

Submitted to the School of Graduate Studies of Michigan State College of Agriculture and Applied Science in partial fulfillment of the requirements for the degree of

MASTER OF ARTS

Department of Philosophy

1952

ACKNOWLEDGMENTS

I would like to express my appreciation for the generous help which was made available to me in the development of this thesis. Professor Henry S. Leonard, Head of the Department of Philosophy, supervised the entire procedure, and was most patient in cultivating an acceptable presentation from the crude stages in which the thesis was cast. Associate Professor Lewis K. Zerby carefully read the manuscript, and suggested certain improvements which have been incorporated in the final text. The topic itself was suggested in the course of my responsibilities as a graduate assistant, which involved conducting class discussions on Descartes and Berkeley. Mr. Callaghan, the instructor under whose guidance I carried out these responsibilities, has been of vital help to me in the interpretation of Descartes' philosophy.

For my appointment as a graduate assistant, which directly opened the possibility of this study, I am deeply grateful to Michigan State College.

The difficult job of typing which was involved in every stage of the study, was generously undertaken by my wife, Mary Barbara Hurrell.

***Paul Manson Hurrell

TABLE OF CONTENTS

CHAPTER I

AN INTRODUCTION

René Descartes (1596-1650) has been called the father of modern philosophy, marking a transition from scholasticism to the more rigorous application of method which characterizes modern thought. This is not to say that modern thought is Cartesian, since his thought has probably met with considerably more disagreement than concurrence, but even in the disagreement important lines of thought have developed, which still exert their influence. Among the most important of these developments has been the tendency to use the appraisal of immediate experience as a point of departure from which to evaluate the nature of human knowledge and of reality in general. This tendency derives much of its impetus from criticism of the proposition adduced by Descartes as his first principle, cogito ergo sum. This famous principle, still a locus of controversy, is the occasion of the present paper.

This thesis shall therefore be concerned with only one limited area in which Descartes has influenced subsequent thought, and it should not be thought that the scope of this paper is intended to be an index to the modern significance of Descartes' philosophy. An indication of the wide range of considerations which would have to be treated if such were the

purpose, may be seen in the following comment of Frank Sewall:

> To the Frenchman, René Descartes, modern learning is indebted for some of the most potent factors in its advancement. These are: in Mathematics, the invention of the Binomial Theorem and the application of Algebra to Geometry in the Analytic Geometry; in Physics, the suggestion of the evolution of the universe through Vortices and the discovery of the laws of the Refraction of Light; in Physiology, the doctrine of the Animal Spirits and the theory of the Mechanism of the soul's operation in the body; in Philosophy, the finding of the ultimate reality in subjective consciousness and the deducting thence of an argument for, if not a proof of, the existence of God; in Epistemology, the grounding of scientific Law on the existence of a true God; in Ethics, the tracing of evil to the necessary error arising from judgments based on finite and therefore imperfect knowledge.[1]

This passage gives an indication not only of the scope of Descartes' contributions, but also of their controversial character. And indeed, in addition to disagreement concerning the validity of his conclusions, there has also been disagreement as to the exact character of his philosophy. J. P. Mahaffey, for instance, endeavored to distinguish his own estimate from that of certain historians, and his contrast of interpretations serves to illustrate the disagreement as to the nature of Descartes' philosophy. Mr. Mahaffey wrote as follows:

> But Descartes' philosophy was the very opposite of what historians of philosophy have described it--it was not a system based on the observation of the

---

[1]The Method, Meditations and Philosophy of Descartes, translated from the Original Texts with a new Introductory Essay, Historical and Critical by John Veitch (New York, [n.d.]), p. v. (From the special Introduction by Frank Sewall)

> facts of consciousness. It was a deductive system, drawn, as a mathematician would be sure to frame it, from the fewest possible assumptions.[2]

In the philosophy of an able mathematician, one would expect to find deduction in an important role. However, does this necessarily mean that the system cannot also be based upon observation of the facts of consciousness? An interplay of both factors is evident in Descartes' consideration of the idea of God. He claimed to have "a clear and distinct idea" of "an infinitely perfect being." This claim involved a report on his experience. The idea was considered as an item actually present in his consciousness, and in that capacity constituted a pivot for deduction. This is manifest from the very character of his deduction, in which he considered the question as to how it was possible for such an idea to be present in his mind. The idea was plainly considered as a real item in his experience, and in accounting for this fact of consciousness, he used deduction to endeavor to find what must necessarily be the nature of that idea's source.

There has been no attempt in this paper to elaborate upon a variety of interpretations of Descartes, since the purpose is to develop one interpretation in particular, and to relate it to some of the positions of modern thought. It is appropriate to this purpose, however, to indicate the nature of the approach which has been adopted. The endeavor has been made to preserve

---

[2]J. P. Mahaffey, Descartes (London, 1880), p. 150.

elements both from Mahaffey's criticism and from the view against which his criticism was directed, utilizing both the deductive and the empirical aspects of Descartes' approach. What has been rejected is any arbitrary disconnection between these aspects, as if the use of either one meant the denial of the other. That is, it has been granted that Descartes' system is deductive, but this has not been taken to mean that the system is not also empirical.

The term "empirical" is often identified entirely with sense experience, but in this paper, such a restriction has been rejected. Instead, the term "empirical" has been granted the range of one's entire experience, whether sensory, deductive, or anything else. This view was adopted on the grounds that any deduction which human beings ever make must become a part of human experience, and must therefore be a constituent factor in the range of the empirical. In this sense, a deduction has been regarded as presupposing an empirical fact; namely, its own occurrence and whatever is requisite to its occurrence. However, an empirical fact does not, of course, always involve a deduction.

While this interpretation has been advanced merely as one among others, and it is not claimed that this is the correct interpretation, nevertheless there is support for such an approach in Descartes' philosophy. It would seem, for instance, that to characterize his system as deductive without proper recognition of its empirical character would be to betray the

special meaning which Descartes' attributed to deduction. With respect to this point, S. V. Keeling's treatment of Cartesian deduction is very good, as the following passages illustrate:

> Deductio, then, is not syllogistic, but is a succession of intuitive acts disclosing which terms depend on which, or what relations hold necessarily between which terms.
>
> . . . . . .
>
> Intuitus and deductio are thus essentially 'contemplative' and exploratory, neither is affirmative. They reveal, or make discoveries, and it was Descartes' objection to syllogistic logic that it does not--'a syllogism', he says, 'cannot yield a true conclusion without our having previously come to know the very truth that is deduced in that syllogism.'[3]

It would seem, then, that Cartesian deduction proceeded as a succession of special kinds of experiences, i.e., intuitions. Also, the nature of Cartesian deduction was explicitly distinguished from any over-identification with syllogistic logic. The present consideration, however, is not a defense of Cartesian deduction. What has been preserved is the character of a deduction as an experience, or as a potential experience, regardless of the exact nature of that experience.

Also, it has been assumed that, even if logic is not a tool of discovery, one may still make good use of it in affirming and checking whatever is discovered. That is, while other factors may give rise to hypotheses, logic is invaluable in appraising

---

[3]S. V. Keeling, "Descartes," Proceedings of the British Academy, Vol. XXXIV (1948). Reprinted December 1948, Oxford University Press, p. 3.

the consequences involved in particular hypotheses. Thus, the view has been adopted that regardless of how the cogito is discovered, it may be affirmed as a hypothesis with a certain range of logical consequences. For once something has been discovered, it may be affirmed, and thus treated as an affirmation.

While these introductory comments have not adequately described the interpretive viewpoint adopted in the thesis, they have been advanced as preparatory to the chapters which follow. It is hoped that the subsequent discussion of the thesis will more adequately develop the viewpoint which has been introduced in this chapter.

CHAPTER II

COGITO ERGO SUM

The purpose of this chapter is threefold. First, it is to show that the cogito may be understood as a principle incurred by a given methodology. Second, it is to clarify further the nature of the principle by distinguishing it from derivative lines of thought developed by Descartes. Third, it is to set forth the interpretation of the cogito which this paper is intended to support.

Cartesian Method and the Cogito

Disturbed by the abundance of conflicting dogmas in the world of learning, Descartes sought some method by which absolute certainty could be achieved, and contradictions between doctrines could be eliminated. His inquiry led him to adopt a test of doubt, so that any matter which he could logically doubt he would not accept as true. This test was fundamental to Descartes' whole procedure. He explicitly incorporated it in the first of his four rules of method, as set forth in Part II of the Discourse on Method:

> The first was never to accept anything for true which I did not clearly know to be such; that is to say, carefully to avoid precipitancy and prejudice, and to comprise nothing more in my judgment than

> what was presented to my mind so clearly and distinctly as to exclude all ground of doubt.[4]

By adopting doubt as a test, Descartes was committed to a significant combination of logical and empirical considerations. The test had a logical status in the sense that Descartes was not interested in maintaining a psychological attitude of doubt once a truth had been adequately demonstrated. Also, the test had an empirical status in the sense that Descartes wished to treat doubt as an actual mental occurrence. The interplay between these aspects of the situation is vital to the understanding of Descartes' conclusions.

Although the first rule of his method, cited above, may be understood primarily as a logical discipline, one should not overlook the empirical factors involved. The term, accept, indicates the empirical occurrence of a person's decision for a particular belief. Similarly, precipitancy, prejudice, and judgment are terms representing certain characteristics of experiential behavior. Also, to understand anything clearly and distinctly requires a particular kind of mental experience. Finally, the term doubt itself signifies an attitude which is one kind of experience, sufficiently common to be recognized easily.

Doubt as an experience, however, is not sufficient grounds for rejecting a particular proposition or argument. It is

---

[4]Descartes, Veitch ed., p. 161.

possible that a person would doubt in the face of the best possible evidence. Such doubt would be psychological only, and would fail to have logical significance. The test which Descartes proposed must be held responsible to a rational standard, without which it is not a test at all.

Descartes' approach must therefore be understood as a composite of logical and empirical factors, and is easily misunderstood if one abstracts either set of factors from the integral situation. Either of these two aspects of the situation is impotent apart from the other. However valid it may appear, the test of doubt is a rational standard for no one, unless it becomes the experience of someone. Likewise, the experience of doubt is a valid test for no one, unless it meets some rational standard. In this light, one may think of Descartes' test as one of rational-empirical doubt.

The function of doubt in Descartes' philosophy leads to quite different results than does the doubt of skepticism. This fact was explained by Descartes in the following passage:

> Not that in this I imitated the Skeptics who doubt only that they may doubt, and seek nothing beyond uncertainty itself; for, on the contrary, my design was simply to find ground of assurance, and cast aside the loose earth and sand, that I might reach the rock on the clay.[5]

At first, Descartes only tested certain limited matters, exempting his religious and civil commitments,[6] but eventually

---

[5]Descartes, op. cit., p. 168.

[6]Descartes, loc. cit.

he resolved to doubt everything possible, to determine what beliefs, if any, could survive the test. If some content of his beliefs could remain wholly indubitable, he would thereby have discovered a sure foundation of truth upon which to build. But to find something wholly indubitable, it would be necessary to allow doubt its fullest possible range, and thus open the door to the possibility that no beliefs are trustworthy. This procedure he explained in Part IV of the Discourse on Method.

> I had long before remarked that, in relation to practice, it is sometimes necessary to adopt, as if above doubt, opinions which we discern to be highly uncertain, as has been already said; but as I then desired to give my attention solely to the search after truth, I thought that a procedure exactly the opposite was called for, and that I ought to reject as absolutely false all opinions in regard to which I could suppose the least ground for doubt, in order to ascertain whether after that there remained ought in my belief that was wholly indubitable.[7]

In pursuit of the "wholly indubitable," then, Descartes came upon and developed his famous first principle, cogito ergo sum. This principle he considered immune to his adopted test. He found it impossible consistently to think all things are false, for an inescapable minimum remained--namely, that he thought. Thus Descartes had found the firm basis of knowledge which he had sought:

> But immediately upon this I observed that, whilst I thus wished to think that all was false, it was absolutely necessary that I, who thus thought, should be somewhat; and as I observed that this

---

[7] Ibid., pp. 170-171.

> truth, I THINK, HENCE I AM, was so certain and of such evidence, that no ground of doubt, however extravagant could be alleged by the Sceptics capable of shaking it, I concluded that I might, without scruple, accept it as the first principle of the Philosophy of which I was in search.[8]

The power of this principle can be seen in the very attempt to deny it, for one often finds that in his very denial he has recreated the essential pattern of the premise, I think. Suppose, for instance, that someone rejects the premise, I think. In the rejection, the same underlying pattern recurs, for if someone rejects the premise, it seems reasonable to suppose that every time he rejects it, it follows that he rejects, therefore he is.

Or suppose one makes a different approach. In trying to estimate the validity of any assertion, including the premise in question and the cogito as a whole, one generally expects to encounter one of several possible results. He may judge the assertion to be true; he may judge the assertion to be false; he may judge it to be probably true; or, probably false; he may judge it to be indeterminate; or, he may simply not judge it at all. Basically, such alternatives can be divided into two more general alternatives--that either he judges the matter or he does not. Thus, if he judges the assertion to be true, false, probable, improbable, indeterminate, or anything else, he judges, and in so doing demonstrates

---

[8] Ibid., p. 171.

the essential outline of the premise in the cogito. As to the alternative that he simply does not judge the assertion, he would not then be involved in the cogito. However, he would be confined to not judging any matters whatsoever, if he were to refrain permanently from demonstrating the premise, he judges.

The same type of situation develops with regard to asserting the cogito, or asserting anything. If one asserts that the cogito is true, or asserts that it is false, or that it is orange, he asserts, and the premise in the cogito is simply manifested in a different form. As in the case of judging, one has the alternative of simply not asserting anything at all, but either he must demonstrate the premise, he asserts, or forever keep silence.

The consideration of sense experience also lends itself to the development of the cogito, as Descartes showed in the Second Meditation:

> For if I judge that the wax exists because I see it, it assuredly follows, much more evidently, that I myself am or exist, for the same reason: for it is possible that what I see may not in truth be wax, and that I do not even possess eyes with which to see anything; but it cannot be that when I see, or, which comes to the same thing, when I think I see, I myself who think am nothing. So likewise, if I judge that the wax exists because I touch it, it will still also follow that I am; and if I determine that my imagination, or any other cause, whatever it be, persuades me of the existence of the wax, I will still draw the same conclusion. And what is here remarked of the piece of wax, is applicable to all the other things that are external to me.[9]

---

[9] Ibid., p. 233.

One of the most persistent problems of philosophy has been to assign a proper status to the testimony of the senses. In dealing with this problem, Descartes indicated that someone assigns a status to sense testimony, judges in relation to sense testimony, thinks that he sees something, and so forth. Thus in assigning any status to sense experience, one attests to the validity of the cogito. If this be the case, sense experience should not be assigned any status which contradicts the cogito.

Someone may wonder, "Why not say that I act, instead of I think?" Descartes' answer would be that one can doubt that he acts, whereas he cannot doubt that he thinks. In his reply to P. Gassendi, theologian and Epicurean philosopher, Descartes defended the Second Meditation as follows:

> When you say that I could have inferred the same conclusion from any of my other actions, you wander far from the truth, because there is none of my activities of which I am wholly certain (in the sense of having metaphysical certitude, which alone is here involved), save thinking alone. For example, you have no right to make the inference: I walk, hence I exist, except in so far as our awareness of walking is a thought; it is of this alone that the inference holds good, not of the motion of the body, which sometimes does not exist, as in dreams, when nevertheless I appear to walk. Hence from the fact that I think that I walk I can very well infer the existence of the mind which thinks, but not that of the body which walks. So it is also in all other cases.[10]

In this reply, Descartes held his case in good fashion. However, a point of difference has been adopted in this thesis, and it

---

[10]René Descartes, "Objections and Replies," Descartes Selections, edited by Ralph M. Eaton (New York, 1927), p. 251.

will be well to distinguish the point now. Descartes adhered to a concept of absolute certainty, and thus discarded inferences based on "any of his other actions" because he could not speak of these actions with the same certainty as he could speak of his thought. The present thesis does not endorse Descartes' concept of certainty, but is concerned instead with the consequences of various logical commitments, whether these are absolutely certain or not. Thus, one might agree that there is no basis for an absolutely true judgment, "I walk, therefore I am," and still accept the judgment that "if I walk, then I am." It does not appear that Descartes would have had any basis for rejecting such an inference <u>if</u> the premise were certain.

It is true that some of the alternatives for premises seem more justified than others. In view of this fact, it is important to consider why Descartes restricted himself to "I think" as an indubitable premise. Here is encountered an interesting feature of Descartes' argument, namely, the reflexive reasoning which he introduced to support it. The reason "I think" was regarded as <u>indubitable</u> is because that to doubt such a premise is to demonstrate its validity, since doubting is a form of thinking. Descartes reasoned that he cannot doubt that he doubts, for if he doubts that he doubts, then he doubts.

Similar reflexives can be developed in any direction of inquiry. For instance, one cannot think that he does not think,

without thinking. One cannot believe that he does not believe, without believing. One cannot assert that he does not assert, without asserting. One cannot decide that he does not decide, without deciding. One cannot imagine that he does not imagine, without imagining.

Such reflexives exhibit the ego-centric predicament in some of its aspects, and the remarkable fact is that, instead of merely trying to side-step it, Descartes put the predicament to work. He used it to discover what he could think without contradiction. That is to say, some observer might consistently think that Descartes did not think, but Descartes was in that special position, or predicament, from which standpoint he could not consistently think that he did not think.

One way to deal with this kind of reasoning would be simply to discredit it as a violation of type theory. However, if Descartes' argument at this point is a genuine fallacy, it should illustrate the difficulty against which type theory is directed--namely, it should lead to a paradox or a contradiction. However, if the argument be rightly understood, no paradox or contradiction develops.

To show reason for this contention, it will be necessary to recur to a distinction which was made at an earlier point, between two kinds of doubt. In one sense, doubt may represent a logical standard, and in another sense, doubt may be merely a psychological occurrence. Psychological doubt can be either reasonable or unreasonable. In methodological doubt, the effort is made to

limit doubt to some rational standard, i.e., we agree to accept only conclusions drawn under certain conditions. However, methodological doubt is as much an empirical occurrence as are undisciplined experiences of doubt. While doubt may occur without being methodological, it cannot be methodological without occurring.

This interpretation should occasion no crucial disagreement. At least it seems to be compatible with the following statement of Bertrand Russell, in which he makes a limited recommendation of Descartes' procedure: "It is necessary to practice methodological doubt, like Descartes, in order to loosen the hold of mental habits."[11]

In this statement, both elements of the distinction are present. Mr. Russell refers to both methodological doubt and the practice of this doubt, which is an empirical occurrence.

This distinction is helpful in evaluating the statement, "I cannot doubt that I doubt, for if I doubt that I doubt, then I doubt." In this statement, the interplay between the logical and empirical features of doubt must be recognized, for the empirical character of doubt is used to enforce a limit upon the logical use of doubt. The point is that no logical usage can be made at all, unless someone, empirically, makes it. If doubt is to be used logically, it must be used, empirically. This means that the logical use of doubt can never rightly be

---

[11]Bertrand Russell, Our Knowledge of the External World (Chicago, 1915), p. 238.

directed toward the denial of its own empirical occurrence. Such is the importance of Descartes' constant logical contact with the limitations of personal experience. As a logical-empirical unity, his statement makes sense, because it was impossible for him to doubt, logically, without actually doubting, empirically. Thus, the logical connotation of any occasion of his doubt could not explicitly reject what it implicitly required--an occasion of doubt.

Any occurrence or event is sufficient evidence to contradict the assertion that there are no such occurrences or events. In this sense, any event enforces a limit upon the validity of assertions. Such a limit was indicated by Descartes, when he perceived that the occurrence of doubt is required to doubt the occurrence of doubt. That is to say--immediately upon an occurrence of doubt, it would no longer be correct to say that there are no occurrences of doubt. Consequently, a limit is imposed upon the rational use to which any occurrence of doubt may be put, and no occurrence of doubt can be used to repudiate that very matter which it renders certain--namely, the fact that there is an occurrence of doubt.

When one interprets Descartes' reflexive reasoning in terms of his given procedure and its characteristics, then, he finds the reasoning entirely consistent and unparadoxical. In fact, if we lay aside purely linguistic considerations, and consider the reflexive as expressing a limit inherent in the procedure, we must conclude that if in this basic sense Descartes' reasoning

violates type theory, then so do logical systems in general. For no logical system can violate the limits imposed by its own ultimate factors, any more than methodological doubt can violate the limit imposed by its own occurrence. As a presupposition necessary to a given procedure, methodological doubt becomes an ultimate factor limiting the procedure.

In the light of the considerations thus far, it shall be maintained that the cogito lends itself to interpretation as a principle incurred by a given methodological procedure. This is not to say that the principle has no other status, but simply to assert that its relation to a methodology is an important factor in the nature of the principle.

A Delimitation of the First Principle

It is extremely important to recognize Descartes' transition to derivative considerations, i.e., conclusions subsequent to the acceptance of his first principle. This crucial transition is easily obscured, with the result that objections to Descartes' derivative conclusions are uncritically applied to his first principle. To show that such objections do not necessarily apply to the cogito as a first principle is the purpose of this section.

The first principle accepted by Descartes should be examined carefully to note that it says nothing directly concerning the nature of the "I". It asserts what "I" do, but not what "I" am. In the conclusion of the principle, it is asserted that "I" am,

but not what "I" am. The analysis of one's nature is therefore a secondary, derivative step, in relation to Descartes' first principle.

This is important because many a debate concerning the analysis of what human beings are can rage without in the least denying Descartes' first principle. But when the transition to this phase of analysis is obscured, one may falsely conclude that, in disposing of Descartes' particular analysis of his nature, the cogito also has been discredited.

Unfortunately, Descartes did not always keep his readers clear on this transition, and seemed to over-identify his primary and derivative conclusions. He proceeded to the concept of himself as a thing which thinks, or a thinking substance, and developed his philosophic scheme in terms of such a concept. However, it cannot be said that the transition was not marked at all, for in the Second Meditation Descartes wrote as follows:

> But I do not yet know with sufficient clearness what I am, though assured that I am; and hence, in the next place, I must take care, lest perchance I inconsiderately substitute some other object in room of what is properly myself, and thus wander from the truth.[12]

In this passage, the transition is unmistakably marked. The discussion of the nature of the self is a derivative consideration, spread over a large portion of the Meditations. However,

---

[12]Descartes, Veitch ed., p. 226.

Descartes provided a convenient summary in the Discourse on Method, Part IV, which will serve to illustrate the conclusions he derived:

> In the next place, I attentively examined what I was, and as I observed that I could suppose that I had no body, and that there was no world nor any place in which I might be; but that I could not therefore suppose that I was not; and that, on the contrary, from the very circumstance that I thought to doubt of the truth of all things, it most clearly and certainly followed that I was; while, on the other hand, if I had only ceased to think, although all the other objects which I had ever imagined had been in reality existent, I would have had no reason to believe that I existed; I thence concluded that I was a substance whose whole essence or nature consists only in thinking, and which, that it may exist, has need of no place, nor is dependent on any material thing; so that "I", that is to say, the mind by which I am what I am, is wholly distinct from the body, and is even more easily known than the latter, and is such, that although the latter were not, it would still continue to be all that it is.[13]

This statement is permeated with controversial issues, but the point is that to reject this doctrine of the self does not necessarily justify a rejection of the first principle. The first principle speaks to a different matter--namely, a basis for concluding logically <u>that</u> "I" am.

Werkmeister expressed the opinion that Descartes himself misused the transition indicated:

> As far as the first issue is concerned, analysis of the Cartesian argument shows that its author subtly discards the proposition "I think, therefore I am," and that he replaces it by the assertion, "I am a thing which thinks," "a mind or a soul." He implicitly assumes the equivalence of these two formulations but

---

[13]<u>Ibid</u>., pp. 171-172.

> uses only the latter as the "first principle" of his philosophy.[14] And right here the first difficulties arise.

Whitehead also pointed to the same center of difficulty:

> At this point the confusion commences. The emergent individual value of each entity is transformed into the independent substantial existence of each entity, which is a very different notion.
>
> I do not mean to say that Descartes made this logical, or rather illogical transition, in the form of explicit reasoning. Far from it. What he did, was first to concentrate upon his own conscious experiences, as being facts within the independent world of his own mentality. He was led to speculate in this by the current emphasis upon the individual value of his total self. He implicitly transformed this emergent individual value, inherent in the very fact of his own reality, into a private world of passions, or modes, of independent substance.[15]

These references serve to illustrate that not only must the transition in question be recognized, but also it must be regarded as unsatisfactory. Werkmeister contended, moreover, that the transition is not correct even in terms of Descartes' approach:

> The proposition, "I think, therefore I am," is undoubtedly an "intuitive certainty"; but can the same be said of its "equivalent"? Hardly. The contention that "I am a mind or a soul" is by no means a direct intuition; and the transition from the simple affirmation "I am" to the contention "I am a thing which thinks," from cogito, ergo sum to ego sum cogitans--approved though it was by Spinoza and Leibniz--cannot be justified as long as we adhere to Descartes' methodological approach.[16]

---

[14]W. H. Werkmeister, A Philosophy of Science (New York, 1940), pp. 84-85.

[15]Alfred N. Whitehead, Science and the Modern World (New York, 1950), pp. 279-280.

[16]Werkmeister, op. cit., p. 85.

It will be considered justified, therefore, to approve Descartes' first principle without thereby being committed to the particular categories of thought which characterize his philosophy. That is to say, one may utilize "I think, therefore I am," substituting other concepts of what his nature is in place of Descartes' concept.

Anyone's concept of human nature is certainly subject to error, as was Descartes' concept, but there is a vital difference if one's approach does not claim absolute finality as to the nature of the self. The nature of the self then, may be progressively investigated, and probably debated. However, wide ranges of inquiry and dispute concerning one's nature will presuppose a prior matter--namely, one's existence.

But if it is not necessary to follow Descartes in his doctrine of the nature of the self, must one at least retain Descartes' analysis of the grounds of validity of the cogito? In answering this question, it is important to observe that in Descartes' development of the cogito, the fact of its certitude was asserted before the ground of its certitude was examined. In other words, Descartes decided that this particular principle was true, before he was prepared to explain fully why he was thus assured. This procedure in itself is not necessarily bad, as, for instance, men have decided that 1 plus 1 equals 2 before any thoroughgoing justification for this conclusion was developed. However, it is not therefore necessary to grant with Descartes that his principle is as certain as that 1 and 1 equal 2. The

following passage, for instance, gives rise to considerable questions and disagreement:

> After this I inquired in general into what is essential to the truth and certainty of a proposition; for since I had discovered one which I knew to be true, I thought that I must likewise be able to discover the ground of this certitude. And as I observed that in the words I THINK, HENCE I AM, there is nothing at all which gives me assurance of their truth beyond this, that I see very clearly that in order to think it is necessary to exist, I concluded that I might take, as a general rule, the principle that all things which we very clearly and distinctly conceive are true, only observing, however, that there is some difficulty in rightly determining the objects which we distinctly conceive.[17]

In this procedure, there were at least three important characteristics. First, there was the basic element of decision, which preceded the discussion concerning "the ground of this certitude." As Descartes had decided that he was, before he analyzed his nature, he also decided that the cogito was true and certain, before he analyzed the ground of its truth and certainty. Second, there was the rejection of any purely linguistic connection between the moments of the principle. As Descartes put it, "in the words . . . there is nothing at all which gives me assurance of their truth beyond this, that I see very clearly that in order to think it is necessary to exist. . . ." Third, there was the adoption of the general principle that all matters conceived clearly and distinctly are true.

At this point, as in the case of the nature of the self, a departure has been made from the first principle--this time in

---

[17]Descartes, Veitch ed., p. 172.

the endeavor to elicit from consideration of the cogito a doctrine of validity. The question is--is it necessary to concur with Descartes in this matter, any more than in his doctrine concerning the nature of the self? The contention of this paper is that it is not.

If one concurs with Descartes in his doctrine that clear and distinct understandings of matters are true, he could easily become involved in issues beyond the scope of the cogito. For this doctrine is really dependent upon a broader doctrine, without which the clear and distinct understanding is no guarantee of truth at all. The dependent character of his initial doctrine of validity was explicitly treated by Descartes in the Discourse on Method, Part IV:

> For, in the first place, even the principle which I have already taken as a rule, viz., that all the things which we clearly and distinctly conceive are true, is certain only because God is or exists, and because he is a Perfect Being, and because all that we possess is derived from him: whence it follows that our ideas or notions, which to the extent of their clearness and distinctness are real, and proceed from God, must to that extent be true. Accordingly, whereas we not unfrequently have ideas or notions in which some falsity is contained, this can only be the case with such as are to some extent confused and obscure, and in this proceed from nothing, (participate of negation), that is, exist in us thus confused because we are not wholly perfect. And it is evident that it is not less repugnant that falsity or imperfection, in so far as it is imperfection, should proceed from God, than that truth or perfection should proceed from nothing. But if we did not know that all which we possess of real and true proceeds from a Perfect and Infinite Being, however clear and distinct our ideas might be, we should have no ground on that

> account for the assurance that they possessed the perfection of being true.[18]

In a sense, then, Descartes held that his initial decision, that the cogito is true, was dependent for its validation upon the subsequent doctrine of God. But to follow Descartes to this extent would mean possibly to restrict the discussion to those who believe that God exists, or to attempt to convince those who do not. Either of these procedures seems highly inappropriate to the purpose of this paper.

There is an indication that the cogito does not strictly require Descartes' doctrine of God in his argument that a person cannot be logically deceived as to whether or not he exists. This argument simply asserts that a person must exist in order to be deceived at all. One encounters then, the essential structure of the cogito in different words: I am deceived; therefore I am. Such a revision is not simply a play on words, but is based on the idea that if a person did not exist, he could not very well be deceived. When the cogito is set forth in this manner, it does not seem to be directly dependent upon Descartes' beliefs concerning God. Also, it does not seem necessary to base the validity of the cogito upon the fact that it is clearly and distinctly perceived to be valid, even if this doctrine be divorced from the consideration of God. While lucidity and exactitude of insight are greatly to be desired, and are often decisive in profound

---

[18] Ibid., pp. 175-176.

issues, it does not appear that the validity of the cogito rests upon such grounds, even if its discovery was made upon such grounds. For if one conceives the cogito in rather muddy fashion, the fact that he conceives it at all is the point which suggests its validity, not the degree of clarity and distinctness involved in the experience.

In view of the fact then, that both Descartes' doctrine of the nature of the self and his doctrine of the nature of validity are subsequent considerations which are not necessarily involved in the acceptance of the first principle, criticism which may suffice to vanquish the derivative doctrines does not necessarily apply to the cogito. The present thesis, accordingly, is based on the view that one can accept the cogito without being bound to the derivative doctrines advanced by Descartes.

Not only is it possible to make this distinction between the first principle and derivative matters, it is also essential to the adequate appraisal of the strength of the first principle, and its adaptability to different modes of thought. When the distinction is blurred, one may falsely identify the cogito with Descartes' modes of thought, and suppose that the former falls with the latter. Thus it is possible that the cogito, supposed dead, may appear as an unrecognized presupposition in approaches which have over-identified the principle with seventeenth century modes of thought. It would seem that if this first principle is either to be accepted or rejected, it would be unwise to base the decision on matters which are not

"first" but subsequently derived. Therefore, regardless of a thinker's decision concerning the cogito, it is important to recognize its bounds sufficiently to extricate it from other matters.

The principle represents an initial decision for validity, not a mature doctrine as to the grounds of validity. It represents an initial commitment to the fact of one's own existence, not a mature doctrine as to the nature of oneself. As an initial decision, the principle becomes an ultimate factor for any subsequent thought based on its acceptance. As such a decision, the principle is dangerous if wrong, and therefore is merely hypothesized in this paper. However, as such a decision, the principle is unique, for if one decides anything, for or against the principle, it would seem that he decides, therefore he is.

The Cogito as a Hypothesis

The present thesis explicitly abandons Descartes' ideal of absolute certainty, and concerns itself instead with the logical limits of a given procedure or situation. This is done, however, in the belief that Descartes reasoned from within the confines of a given procedure, and faithfully exhibited its inherent limits, but did not achieve absolute certainty. It is for this reason that attention has been called to the way in which his first principle developed out of his methodological approach.

In an absolute sense, it is not contended that Descartes demonstrated that there is any actual occurrence of doubt. At least he did not demonstrate this in the reflexive reasoning in which he asserted that one cannot doubt that he doubts, for if he doubts that he doubts, then he doubts. Such reasoning is based on the form, "*if* p *then* q," and there is no justification for asserting its premise, "he doubts that he doubts." Suppose one accepts the implication itself as valid, that *if* one doubts that he doubts, *then* he doubts. The validity of such an implication would not provide one iota of evidence that there has been or ever will be, an empirical occurrence of doubt. What is affirmed is that if one ever should happen to doubt, he then would encounter a given logical limit to the consistent use of doubt.

In this sense, the idea that doubt occurs remains *indubitable*, but the fact that doubt occurs is *not absolutely certain*. Descartes' reasoning disclosed the *inability* to doubt a particular matter, but it does not demonstrate the *ability* to doubt anything. The reasoning is negative, prohibitive, and the prohibition of one application of doubt does not mean that any doubt ever occurs. Similarly, if one reasons that he cannot doubt that he thinks, since to doubt would be to think, he may show that the occurrence of thinking is indubitable, but not therefore that any thinking actually occurs. He simply has shown that *if* he ever should doubt, *then* he would be thinking.

Regardless of the negative characteristic of the reasoning, however, its force as defining a procedural or methodological limit can be retained. For if in fact one ever does doubt, he does encounter the limit defined by Descartes. And if any method which one may empirically pursue will presuppose that he thinks, he inquires, he judges, he perceives, or he believes, then such a presupposition is, relative to the method, an ultimate factor--a criterion which helps to define the limits of the method. This view is in keeping with the fact that Descartes worked within a given method, and that he accepted the fact that he doubted many things on many occasions, before discovering a limit to the logical use of doubt.

Such an interpretation is, of course, subject to its own difficulties, but at least it avoids one important error. The error is to assume that, if Descartes failed to demonstrate the certainty of doubt or thinking, one will not therefore incur in empirical procedures the kind of limits, or ultimate principle, which he exhibited.

One statement of Descartes lends itself especially to the use of his first principle as a methodological ultimate. In Meditation II, Descartes remarked as follows:

> So that after having reflected well and carefully examined all things, we must come to the definite conclusion that this proposition: I am, I exist, is necessarily true each time that I pronounce it, or that I mentally conceive it.[19]

---

[19]René Descartes, "Meditations," Descartes Selections, edited by Ralph M. Eaton (New York, 1927), p. 97.

In this statement, Descartes advanced a proposition which may or may not be true in itself, but which automatically becomes true whenever it is asserted or conceived. This does not prove that it is true always, or that it will ever be asserted or conceived. But if, in any empirical procedure, one does assert or conceive it, then he makes it true for that occasion. Relative to any occurrence of its assertion, then, the proposition holds, regardless of what is the case when it is not asserted. Moreover, for any case of assertion whatever in the procedure, a limit is defined, such that no case of assertion should contradict what it presupposes, i.e., that whoever asserts, exists.

The interpretation here advanced is not intended to deny the possible persuasiveness of Descartes' discussion of his first principle. This paper simply leaves that issue open, and points out that even when Descartes' arguments are rejected, one may incur, on a different level of certainty, the very limits which he discovered. The point which is here maintained is that the procedural use of Descartes' first principle need not rest upon the question as to whether or not his demonstration is satisfactory. The continuing inquiry into the problem of determining valid beliefs may warrant the hypothesis of the cogito as a possible criterion, in order to evaluate the consequences of such a possible criterion. As a hypothesis, the cogito should be evaluated in terms of its propriety to our procedures and to experience in general,

instead of being overly identified with the arguments advanced by Descartes.

An important ideal for criteria of validity is that such criteria should be public rather than private in character. However, this ideal often suffers from a lack of clarification. Consequently, in the zeal to achieve impersonal science, a tendency to negate the role of the individual develops. In the eagerness to be "objective," it may seem that the further science can get the individual out of the picture, the more objective knowledge will have become.

It is obvious, however, that there is a sense in which this reasoning can lead to an absurdity. For if science ever did get the individual completely out of the picture, there might be something "objective" left, but no one would ever know about it. In this misconception of the role of the individual, the concept, "impersonal," has been confused with the concept, "apersonal." If the latter concept were realized, there could possibly be facts, but not scientific facts, i.e., there could be no human knowledge. Science would have been freed from the "personal limitations" of the scientific observer to such an extent that there could be no scientific observer, observations, or science.

While criteria for validity must be public rather than private, such criteria must inevitably presuppose some relationship to the experience of the individual. The public character

of criteria for validity should be conceived as meaning that the employment of the criteria can be generalized to determine valid beliefs for anyone. The problem is, then, not so much just to abstract from the experience of the individual, but to generalize for the experience of any number of individuals. When the present thesis proposes the hypothesis of the cogito as an ultimate principle, it endeavors to utilize the relativity of criteria for validity to individual experience without doing violence to the legitimate ideal of "impersonal" science.

In evaluating such a hypothesis, it is important to observe the nature of any appropriate estimate of its validity. If, perchance, the hypothesis should be correct, the cogito must be regarded as an ultimate principle. Thus, if anyone should demand a logical proof for the principle, he would have made a demand which, a priori, would make acceptance of the principle impossible. For if the principle could rest on a logical proof, then it could not have been ultimate. And, if the principle should not be susceptible to proof, the demand, a priori, forbids its acceptance.

The cogito, as it is hypothesized in this paper, is conceived as a principle relating any given experience to a subject of that experience, so that the presence of the experience is regarded as involving the presence of the subject. The experience is not regarded as something separate from the subject. Instead, the subject which experiences, and any matters which are experienced, are regarded as constituent factors in the

experience. While the principle is applicable to experience in general, its use as a methodological ultimate would involve some phases of experience more directly than others. In this respect, judgment and decision would play dominant roles.

This viewpoint draws heavily from the position of Alfred North Whitehead, who did not hesitate to anchor decision to something which makes the decision. The following passage illustrates this point and also serves to emphasize the importance of decision in Whitehead's viewpoint:

> The ontological principle asserts the relativity of decision; whereby every decision expresses the relation of the actual thing, for which a decision is made, to an actual thing by which that decision is made. But 'decision' cannot be construed as a casual adjunct of an actual entity. It constitutes the very meaning of actuality.[20]

It should be pointed out that Whitehead's use of decision in a generic sense does not forbid its application to the personal level. Instead, the generic sense includes the personal, as the following statement shows:

> Further, in the case of those actualities whose immediate experience is most completely open to us, namely, human beings, the final decision of the immediate subject-superject, constituting the ultimate modification of subjective aim, is the foundation of our experience of responsibility, of approbation or of disapprobation, of self-approval or of self-reproach, of freedom, of emphasis. This element in experience is too large to be put aside as misconstruction. It governs the whole tone of human life.[21]

---

[20]Alfred N. Whitehead, Process and Reality (New York, 1941), p. 68

[21]Ibid., p. 74.

The bearing of Whitehead's viewpoint on the analysis of propositions is important. What is suggested is that analysis must take into consideration not only the content of a given proposition, but also the relation of the proposition to a judging subject. That there is such a relation to be considered was stated by Whitehead as follows:

> But, since each actual world is relative to a standpoint, it is only some actual entities which will have the standpoints so as to include in their actual world, the actual entities which constitute the logical subjects of the proposition. Thus every proposition defines the judging subjects for which it is a proposition.[22]

The present thesis endorses the essential character of this doctrine, but suggests its application beyond the purpose of metaphysical description. If the reference to a standpoint from which the proposition may be entertained or judged is an inherent characteristic of propositions, then it should be used to deny the validity of any propositions which betray that characteristic. Thus for instance, the proposition, "There is nothing at all," could not consistently be judged valid from the standpoint of <u>anything</u> at all. But more specialized judgments could be affected also, as the following passage indicates: "Thus, in a proposition certain characteristics are presupposed for the judging subject and for the logical subjects."[23]

---

[22] <u>Ibid</u>., p. 294.

[23] <u>Ibid</u>., p. 297.

When "characteristics" are presupposed for the judging subject, we see that propositions must be consistent not only with the fact that the subject (who judges) is, but must also be consistent with what the particular subject is, or at least with what a judging subject is in general. Thus, if the content of a proposition be such that it contradicts either the existence of, or the nature of its judging subject, the proposition must be regarded as false.

In endorsing such a view, the present thesis is committed to a rejection of the idea that propositions can be properly analyzed as self-contained structures of meaning. There is a limited comparison between the approach here undertaken and the following doctrine of John Dewey:

> The fallacy in the theory of logically original complete and self-sufficient atomic propositions is thus an instance of the same fallacy that has been repeatedly noted: The conversion of a function in inquiry into an independent structure. It is an admitted fact that ideally, or in theory, propositions about irreducible qualities are necessary in order adequately to ground judgment having existential reference. What is denied is that such propositions have complete and self-sufficient logical character in isolation.[24]

The suggested hypothesis of the cogito recognizes Dewey's doctrine that propositions in inquiry are not self-sufficient, and interprets their dependence in accord with Whitehead, as referring to an existential subject. It is held that assertion,

---

[24]John Dewey, The Theory of Inquiry (New York, 1949), p. 149.

thought, belief, awareness, etc., require a principle which maintains the relation of such experiences to an existential subject. The principle which preserves this relation is referred to as the principle of subjective reference.

Thus far, then, the cogito has been considered as a development relative to a given procedure, distinguished from derivative doctrines of Descartes, and initially presented as a hypothesis. The next step will be to test the principle in relation to a key modern criticism, and in so doing to indicate more precisely its character and strength.

CHAPTER III

RUSSELL'S ENCOUNTER WITH THE *COGITO*

One of the most influential philosophic thinkers in the twentieth century has been Bertrand Russell. In view of his stature alone, he would provide an excellent liason between the considerations thus far and the temper of modern thought. There is, however, a more direct relation between the principle under consideration and Russell's philosophy. For he has explicitly rejected Descartes' first principle, and has elucidated his own approach by contrast with that principle. Moreover, the type of rejection advanced by Russell does not represent just one isolated interpretation, but has been rather typical since the days of Hume. Thus the consideration of Russell's encounter with the *cogito* constitutes a key test for the principle, a test which embodies elements from the historical development of which Hume was the parent, and which embodies the critical insight of one of the great figures in contemporary thought.

In the course of time, Russell's position has undergone changes, especially with reference to points which are the concern of this paper. One way to have dealt with this fact would have been to consider only the latest writings of the

philosopher, and to ignore what he had said earlier. However, this would be to lose sight of the significance of the changes themselves, and, while some purposes would not be affected, at least one of the changes is of considerable importance with respect to the topics under consideration. Consequently, the historical dimension of Russell's criticism has been taken into account, sufficiently to show that certain difficulties were incurred by his earlier approach to the cogito, and that these difficulties exerted some influence in a subsequent transition of viewpoint. The purpose is not to give a history of Russell's thought, nor to claim that the difficulties considered are sufficient to explain the transition in question. However, it is contended that the difficulties in question were such as to demand a resolution in terms of certain alternatives, and that within these alternatives the transition in Russell's thought did develop.

The procedure which has been adopted is, first, to consider Russell's earlier contrast of his own approach to the approach of Descartes; second, to consider some of the characteristics of Russell's approach which seem to be of consequence for his subsequent thought; third, to consider the transition of viewpoint in which the existence of an experiencing subject was repudiated; and fourth, to evaluate a recent criticism of the cogito in the light of the previous considerations.

The Earlier Criticism

In The Problems of Philosophy, 1912, Russell used one's cognitive relation to a table as a typical example to help explain his epistemological approach. The consideration of an external object would seem quite unlike an approach from the standpoint of the self. However, one need not assume that there is either a table or a self in order to note a comparison between Russell's approach and the one advanced in this paper. That is, one may simply adopt a questioning attitude with respect to these items as he might to any others, without assuming sufficient knowledge either to assert or deny their reality. Then may be developed the epistemological standpoint which underlies the present hypothesis of the cogito, maintaining a distinction between knowing that one is and knowing what one is. One may then represent this distinction in terms of two epistemological questions. "Is there a real self at all?" "If so, what sort of reality can it be?" In terms of these questions, the similarity between such an epistemological approach and the approach which Russell used can be seen. The following passage will illustrate the comparison.

> It will be remembered that we asked two questions; namely, (1) Is there a real table at all? (2) If so, what sort of object can it be? Now both Berkeley and Leibniz admit that there is a real table, but Berkeley says it is certain ideas in the mind of God, and Leibniz says it is a colony of souls. Thus both of them answer our first

> question in the affirmative, and only diverge from the views of ordinary mortals in their answer to our second question. In fact, almost all philosophers seem to be agreed that there is a real table.[25]

This passage maintains the type of epistemological distinction which the present thesis seeks to maintain. It also suggests that, while there may be widespread disagreement in answering the second of the two questions, there may be widespread agreement in answering the first. Of course, for various philosophers to come even to a debate concerning the second question, they must have given at least a qualified assent to the first. Such a locus of agreement, presupposed in a host of disagreements, is important, at least in the sense that if it be overlooked, needless confusion can arise. Russell likewise emphasized its importance when he wrote the following:

> Now obviously this point in which the philosophers are agreed--the view that there <u>is</u> a real table, whatever its nature may be--is vitally important, and it will be worth while to consider what reasons there are for accepting this view before we go on to the further question as to the nature of the real table.[26]

In analyzing the cognitive relation between oneself and the world, Mr. Russell advocated the view that immediate knowledge of sense data does not apprehend the real object, but only 'appearance'. On the basis of the appearance, one infers that

---

[25]Bertrand Russell, <u>The Problems of Philosophy</u> (London, 1950), p. 15.

[26]Russell, <u>loc. cit.</u>

some reality is thereby signified. Thus it is implied that reality is not known by observation alone, but by a combination of observation and inference, at least. As Russell put it:

> It has appeared that, if we take any common object of the sort that is supposed to be known by the senses, what the senses immediately tell us is not the truth about the object as it is apart from us, but only the truth about certain sense-data which, so far as we can see, depend upon the relations between us and the object. Thus what we directly see and feel is merely 'appearance', which we believe to be a sign of some 'reality' behind.[27]

An important characteristic of this view is that it allows, not so much a mere summation of sense-data and inference, but a more complex relationship in which one infers not only from sense data but about sense data. That is, one understands sense data in terms of an interpretive pattern, assuming that they are dependent "upon the relations between himself and the object." Such relations can only be inferred, since they relate one to something "behind" appearance, and appearance is all one gets, in this view, from the sense data.

That such an approach should lend itself to a somewhat favorable relation with Descartes' first principle is not hard to deduce. For if one cannot know that there is a real table without the help of inference, he should not think it strange if he needs to employ the services of inference in deciding

---

[27] Ibid., p. 16.

whether there is a real self. That is to say, the possibility of inferring that there is a real self is not excluded. Instead, it would appear that if there is a real self, the only way it could be found to exist is by the help of inference, since this seems to be the only means of cognitive access to any other 'reality'.

However, at this point, Russell is concerned not with getting to the belief of his own existence, but rather with getting beyond this belief, which is already assumed as valid:

> For if we cannot be sure of the independent existence of objects, we cannot be sure of the independent existence of other people's bodies, and therefore still less of other people's minds, since we have no grounds for believing in their minds except such as are derived from observing their bodies. Thus if we cannot be sure of the independent existence of objects, we shall be left alone in a desert--it may be that the whole outer world is nothing but a dream, and that we alone exist. This is an uncomfortable possibility; but although it cannot be strictly proved to be false, there is not the slightest reason to suppose that it is true.[28]

The last sentence questions the idea that we alone exist, and not the idea that we exist. However, if this interpretation seems doubtful at the moment, it is hoped that references to subsequent passages will establish its soundness. For immediate comparison, the following statement may be helpful:

> Before we embark upon doubtful matters, let us try to find some more or less fixed point from which to start. Although we are doubting the

---

[28] Ibid., p. 17.

> physical existence of the table, we are not doubting the existence of the sense-data which made us think there was a table, we are not doubting that, while we look, a certain colour and shape appear to us, and while we press, a certain sensation of hardness is experienced by us. All this, which is psychological, we are not calling into question.[29]

This passage is important because it exhibits an unquestioned experiential situation, which apparently remains unquestioned throughout the subsequent developments of Russell's thought. If this appraisal is correct, it is of assistance in interpreting changes in Mr. Russell's views, since the changes seem to retain in common an ultimate point of reference.

We come now to Russell's explicit relating of his approach to the first principle of Descartes. He developed the comparison as follows:

> By inventing the method of doubt, and by showing that subjective things are the most certain, Descartes performed a great service to philosophy, and one which makes him still useful to all students of the subject.
>
> But some care is needed in using Descartes' argument. 'I think, therefore I am' says rather more than is strictly certain. It might seem as though we were quite sure of being the same person today as we were yesterday, and this is no doubt true in some sense. But the real Self is as hard to arrive at as the real table, and does not seem to have that absolute, convincing certainty that belongs to particular experiences. When I look at my table and see a certain brown colour, what is quite certain at once is not 'I am seeing a brown colour', but rather, 'a brown colour is being seen'. This of course involves something (or somebody) which (or who) sees the brown colour; but it does

---

[29] Ibid., pp. 17-18.

> not of itself involve that more or less permanent person whom we call 'I'. So far as immediate certainty goes, it might be that the something which sees the brown colour is quite momentary, and not the same as the something which has some different experience the next moment.
>
> Thus it is our particular thoughts and feelings that have primitive certainty. And this applies to dreams and hallucinations as well as to normal perceptions: when we dream or see a ghost, we certainly do have the sensations we think we have, but for various reasons it is held that no physical object corresponds to these sensations. Thus the certainty of our knowledge of our own experiences does not have to be limited in any way to allow for exceptional cases. Here, therefore, we have, for what it is worth, a solid basis from which to begin our pursuit of knowledge.[30]

The cogito may now be regarded as a common center of reference, from which Russell's viewpoint and the viewpoint in this paper diverge. Since the decision for a "solid basis," to use Russell's expression, will determine some factors as ultimate for any derivative analyses, a divergence at this point will be reflected throughout subsequent conclusions. However, since basic decisions are often assumed, rather than re-explained, at later points divergences may develop proportions which make the earlier decisions difficult to recognize. Thus it will be important to distinguish the nature of the divergence as early as possible.

In explaining why the cogito says "rather more than is strictly certain," Russell proceeded immediately to question the identity of the person in terms of the person's temporal

---

[30] Ibid., pp. 18-19.

existence. This approach seems to have confused at the outset the first principle as such and its possible derivative considerations. That is to say, Russell became involved immediately in the nature of the self, or in analyzing what the self may be. In the light of the previous comparison of epistemological approaches, it would seem that, whether one is considering the self or the table, he may try to decide that it exists before asking what sort of item it may be. Particularly, when the topic in question is Descartes' first principle, the consideration of the nature of the self is a derivative issue, and should not be confused with the cogito. On this basis, it is asserted that Russell adopted a dangerous approach to the principle in question--such that the rejection of a particular concept of the nature of the I would almost inevitably lead to the rejection of the prior consideration--that the I exists in some sense. The appraisal at this point can only constitute an indication of the proposed interpretation of some of Russell's later conclusions, and of course, will require substantiation.

Returning to the passage cited above, one may observe a second possible difficulty. Russell asserted that "the real Self is as hard to arrive at as the real table." It is possible here that an important matter was minimized. Once it is assumed that both the self and the table are real in some sense, it may be at least as difficult to arrive at knowledge of the nature of the self, as of the table. However, in asking the prior question

as to whether they are real at all, an important difference is to be noted. In the one case, the problem is to judge whether there is something outside the realm of one's subjective experience, as Russell showed us in a passage previously cited. (See page 42) In the other case, the issue is to decide what factors are involved in the constitution of the subjective realm itself, regardless of whether or not one can know of any existents outside of it. However, in either case oneself is assumed to be present, whether he is confined to a subjective realm or whether he is not. If one attains knowledge of an external world which can have an existence independent of his experience, one's knowledge of such a world is not likewise independent of his experience. Any knowledge that one never experienced could hardly be his knowledge. Thus the self is present in either of the cases considered, while the table is not. It may take many complex factors to justify an assertion that the table has existence as an external object, but, whether such an assertion is correct or incorrect, if one even ventures a guess, he exists. In this respect, the self is not as "hard to arrive at" as the table.

To equate the self and the table as being objects of knowledge in the same sense, with perhaps a difference in the degree of proximity, is to obscure an important factor in the epistemological situation. If it is possible for a table to be an object of knowledge, the table is still an object of knowledge relative to some one. If anyone "arrives at" the

real table, the knowledge is "arrived at" by someone. In such a situation, someone is present, but not as an object of knowledge. Relative to someone else, he may be an object, but from the standpoint of his own experience he is present in the experience of knowing the table. This means that in an experience in which the self and the table may be alike present, they may not necessarily be alike objects of knowledge. Also, the presence of the self in this "non-object" role would appear to be more certain than the presence of the table as an external object, since in anything which one experiences, he is present--whether or not the object is as he supposes.

The presence of the self in this role is of important consequence if a reference to its "non-object" role is to be maintained in all cases of knowledge, including the case in which the self, rather than the table, is an object of knowledge. It is exactly such a reference which is proposed in this paper. To apply this reference would mean that while the table may be an object alone to someone, the person cannot be an object alone to himself, since in such a case he is not only the object "arrived at," but is what "arrives at" the object. This prohibits equating the self and the table as being alike objects of knowledge, since the self is always involved in the role of a knowing subject.

It is not necessary here to assume that in investigating one's own nature, the self as a subject can be completely identified with the self as an object. One may include such

a complete identification as a possibility, to show that there should be no exception in such a case to the principle of subjective reference. However, any lesser degree of identification merely makes the point more obvious. That is, if the self which is known cannot be the same as the self which knows, then the self which knows can never be an object to itself, and in this respect cannot be equated with the table as an object. A limited comparison can be drawn, between the self which is the object (rather than the subject of the knowing experience), and the table. But then the self which is the object is not necessarily the self which is engaged in a knowing experience. And if at any time someone knows about the limited comparison, the self which compared with the table as an object may not be the self which knows about the comparison. Thus at any time one knows about such a comparison, he has the evidence of its falsity, if the comparison purports to apply to him.

There are cases in which the self which is known is very probably different from the self which knows, as, for instance, when one makes an observation about himself which takes time. For instance, one may notice that his shoe is pinching his foot. This of course, involves inference as well as mere awareness, but the point is not affected by that fact. If it is assumed that the nerve signals from one's foot take some tiny interval of time to reach his brain, it might be argued

that he is not the same self at the time he first noticed the shoe pinching as he was at the time when the nerve signal was first occasioned. The self at the time of the nerve disturbance would be temporally removed from immediate experience, and one has a choice between the view that the same self has endured temporally and the view that the self which was known was a different self from the one which knew.

It is easy to exaggerate the problem created by such a time lag. It should be remembered that there is a much greater time lag in the scientific observation of the external world. It is commonly assumed that, in the observation of the sun, the light has taken time to reach the observer. There is, then, the common acceptance of an observational impasse which excludes one from knowing what the sun is doing, if anything, at the present moment. It would seem by comparison that one is at a considerable time advantage in observing things about himself, since the data are more intimately related to the object in question.

The primary issue, however, is not the difference of degree in these observational time gaps, but rather an important difference with respect to standpoint--in which the principle of subjective reference is significant. In the observation of the sun, there is nothing which gives us access to the sun, if it exists, at the present moment. However, in the observation of matters about oneself, the fact that he is engaged in the experience of observation gives him a unique

link between the object known and the present moment. Since the sun has been spoken of as if it possibly had a past and present existence, let it for the moment be assumed that the self likewise could have a past and present existence. In this case, the self as a known object would be past, but would be present as a knowing subject. In this view of self-knowledge, the object that one observes is of the past, but the fact that one observes is of the present. Thus one would not be cut off from the present by an observational impasse in the case of the self as in the case of external objects. The difference is based not on comparative degrees of proximity, but on the standpoint of knowing. If one knows what the sun was a while ago, he can only guess whether it exists at the present. But if one knows what he was a while ago, the fact that he knows it would seem to indicate that he still exists at the present.

If one denies both the self and the sun any enduring existence, and perhaps considers both as historic routes composed by successive discrete entities, the argument is changed but not destroyed. For as a person, who is one historic route, observes the sun, which is another historic route, his experience of observation is again the factor which is evidence of his present existence. In the observation of the sun, the subjective reference is presupposed, but is of no help in telling an observer on earth whether the historic route which is the sun is contemporaneous with him. But in the case of the historic

route in which the observation occurs, there is evidence for the fact that the succession of entities is still proceeding, and the subjective reference to the experience of observing is an important factor.

The cogito, taken without derivative considerations, is indecisive as to whether there is a continuing self or a discrete succession of selves. As Descartes found, the cogito is true "at any time" one considers it. This does not immediately disclose what happens between the times when it is considered. Russell was rightly wary of the "more or less permanent person whom we call I" as being known with the certitude of "particular experiences." The self which can be a factor in immediate experience at any particular moment is naturally the self at the particular moment in question.

In so far as the moment is an abstraction from the course of experience, so will be the self and the datum in question. But there is no more reason to regard the self as only an abstraction than so to regard the particular datum. Both factors may be real occurrences in an interval which itself is arbitrarily selected. In any arbitrarily selected interval of experience, the self has equally as much time to be real as has anything of which we are aware. Thus a subjective reference can be maintained for any particular experience, but the immediate givenness or presence of the self will be temporally as "particular" as any other factor in the experience, and as the experience as a whole.

It would seem that exactly this sort of subjective reference was accepted by Russell when he said, "This of course involves something (or somebody) which (or who) sees the brown colour; but it does not of itself involve that more or less permanent person whom we call 'I'." (See page 44) In this statement, Mr. Russell acknowledged an experiencing subject which seems adequate for the maintainance of the cogito, and he also excluded what has been termed in this paper a derivative consideration--the nature of the self as a "more or less permanent person." Excluding this derivative consideration neither affirms nor denies that the self is something "more or less permanent," but simply recognizes the absence of a proper basis to decide, when one's attention is confined to the immediacy of the moment. It is still a possibility that there is an enduring self which is present at any moment of one's experience, but to require such a self to offer in any moment proof of its duration beyond that moment seems to be rather futile. One might as well say, "It's impossible for me to be fifty years old, unless I am able to find fifty years at any moment."

No end of trouble can result when one forgets that the principle of subjective reference, as applied to any moment of immediacy, is thoroughly inconclusive as to whether the self referred to endures beyond that moment. Forgetting this may lead one to say much more or much less than is justified.

That is, depending on one's point of view, he may be led to reason falsely that, if there is a subjective reference, it refers necessarily to a "more or less permanent person," or to reason falsely that, if there is no immediate justification for the "more or less permanent person," there is necessarily no subjective reference. There is no lack of publicity for the first of these errors, so the present consideration will be limited to the second, which is, besides, the special concern of this paper.

When attention is directed at the experience of the moment, one naturally does not find immediate evidence for anything more permanent than the moment. That is to say, any self or any data would seem momentary, whether they were or not, simply because the unit of attention has so decreed. To forget this is to run the risk of adopting an approach which a priori would be incapable of yielding anything except a momentary self or data, whether these are momentary or not. In such an approach, the reasoning would run something like this: "The only self or data which one can find at any moment seem momentary; therefore the self or data must be inherently momentary." Assuming that it is possible for the self or data to be inherently momentary, such reasoning remains at best a lucky guess. The approach, a priori, would render one incapable of recognizing an enduring reality if there was one. If one confines himself to what he can find at any moment, a really enduring reality would still have no longer than any

moment to be present to him, and no matter how many times it might be present in successive moments, each instance, taken immediately, would yield nothing but a "momentary" reality, apparently distinct from that of preceding moments. Thus the momentariness of a moment may be mistakenly interpreted as the momentariness of the self or data, and may lead one to a false a priori rejection of the "more or less permanent" self. Hence, whether there is such a self, or whether there is not, one must not expect to determine the answer from the immediacy of the moment alone.

There is probably a certain arbitrariness in delimiting a moment of experience, and if so, this characteristic could be turned to experimental use. That is, instead of looking for the smallest possible "moment" of immediate experience only, one could also look for the largest possible "moment" of immediate experience, before codifying immediacy in terms of either. The fact that a very fleeting "moment" of experience may be discoverable by attention does not in the least show that such a moment is the basic unit of particular experiences, if a longer enduring moment may be discoverable in the same manner, i.e., by attention. If there is a relativity of particular experiences to attention, such a fact could prove important as to the continuing identity of a person capable of focusing his attention. For the person, as a subject, could be regarded as enduring at least as long as any span of his attention. As for what span is most nearly true to the conditions of

immediate experience, it is difficult to say, but one may find his attention most unnaturally strained if he tries to catch one of Hume's "impressions," which Hume said succeed each other with an inconceivable rapidity.[31]

It has here been suggested that the cogito can be used in the study of the nature of the self, as well as in the question of the existence of the self. However, it is doubtful that in such a use the same certitude can be maintained, even though the study of the nature of the self is often more valuable than is the assertion, however certain, of the existence of the self. With Descartes, for instance, we find that even if one accepts his first principle, he may soon find that he disagrees with Descartes' derivative conclusions as to the nature of the self. But the debatable character of a given application of the cogito is not a drawback. Instead, there is sufficient elasticity to allow the use of the cogito to keep pace with progressing knowledge of human nature, and while such progress necessitates one's discarding certain interpretations of what he is, the progress itself, at any stage, presupposes that he is.

To summarize the appraisal thus far of the problems in Russell's approach to the cogito, the following items are probably the most important. First, while Russell distinguished

---

[31]David Hume, A Treatise of Human Nature (New York, 1949), I, Book I, Part IV, Section VI, p. 239.

between the problem of knowing that a table exists and knowing what the table is, he did not maintain a similar distinction in the case of the self. Second, the failure to maintain this distinction was followed by a false equation of the self and the table as "hard to arrive at." While in certain ways one's knowledge of the table can be compared to his knowledge of himself, an important difference must be maintained. The difference lies, not in the comparative proximity of the self as an object of knowledge, but in the standpoint of knowing. Thus, to prove that both the self and the table as objects of knowledge are not immediately present, would not in the least prove that the self as a subject is not present in immediate experience. Third, along with the above two considerations, was a faulty interpretation of the cogito, such that there was confusion between the "I" which is limited by the very consideration of immediate experience, and the "I" which could be a "more or less permanent person." It would seem that exactly the "I" which could be evident within the confines of "particular experiences" was, in passing, acknowledged by Russell when he said, "This of course involves something (or somebody) which (or who) sees the brown colour; but it does not of itself involve that more or less permanent person whom we call 'I'." (See pages 43-44) What is questioned in this passage is not the immediate subjective reference, but a derivative estimate of one's nature. In this connection, it has been shown

that the experiencing subject is not excluded by the view that experiences are momentary. That it is not excluded was apparently presupposed by Russell as he continued, "So far as immediate certainty goes, it might be that the something which sees the brown colour is quite momentary, and not the same as the something which has some different experience the next moment." (See page 44) This view of Russell's permits a subjective reference to "the something which sees" at any given moment, even though the reference may be to a different something in each case. In such a view, the subject is equally as immediate as any datum, even though it may not be present in the same capacity as the datum. As to whether the self is "momentary," however, it was pointed out that there is a danger of attributing to the self a limitation that perhaps only characterizes one's unit of attention. This danger should be kept in mind in view of Russell's further statement: "Thus it is our particular thoughts and feelings that have primitive certainty." (See page 44) It is difficult to evaluate the significance of this statement, since Russell goes on to discuss our particular experiences as plural, and it would seem that anything which can have more than one particular experience can have some enduring identity.

It is exactly because there is confusion concerning what "I" is referred to in "the solid basis" developed by Russell that one must consider the possible significance of his position at that time in relation to his later thought. For any confusion

in discussing a "solid basis" could have a continuing effect on subsequent changes and refinements of viewpoint. If the present appraisal has been correct, the "I" of the cogito is one of the factors in the "solid basis" set forth by Russell. But his explicit identification of the "I" as a "more or less permanent person" shows that he did not so interpret the cogito, and did not identify the "I" of the cogito as that factor in his solid basis referred to as "something which sees." Thus if the present appraisal is correct, it is not only the presence of the "I" in the solid basis, but its presence in an unrecognized capacity which seriously endangered Russell's later approaches to ego-centric considerations. For the "I" was relegated to a status which could only be highly questionable, and it would seem only a matter of time until the "I" would topple from its precarious position, in the quest for a scientific account of immediate experience. And after its rejection, there may remain the question as to which, or how much, "I" has been properly considered.

Had the "I" of the cogito been identified with the "solid basis" instead of having only a dubious capacity, the whole problem of dealing with it would have been changed. As it was, the "I" identified as a "more or less permanent person" was already deprived of certainty, and--exactly because the "I" was so identified, the "something which sees" was robbed of significance. That is, this "something" was an awkward appendage, being neither the "I" nor a datum. Russell's approach led to

a split in the subjective aspect of experience; between a dubious "I" and an extraneous "something which sees." In this condition, neither factor could stand before sustained criticism. But, in the same way that these two factors lost significance when separated, they would have gained it if identified with each other. The "I" would have appeared more certain, and the "something" would have appeared more significant. Thus, Russell would not have been confronted by the same problem in ego-centric considerations with the "I" and the "something" combined as he did with them divorced. Criticisms which would destroy either in isolation, would not necessarily destroy a mutual identification of the two, since the "I" would have gained the certitude of being a factor in immediate experience, and the "something" would have gained the significance of personality.

This initial appraisal of Russell's approach cannot be said to have a conclusive bearing on his later thought, of course. However, it does appear that his interpretation of the cogito was dangerously deficient, and it is at least possible that the defects could be reflected in subsequent views.

Some Characteristics of Russell's Early Approach

In order to evaluate more adequately Russell's early treatment of the cogito, it is necessary to consider further some

characteristics of his approach which are of relevance to the topic in hand.

Despite the precarious status of the "I", Russell tended to accept it as more certain than external objects. It is hard to see how he could long be satisfied with such an uncertain self, but for the time he seemed to regard the existence of ourselves and our experiences as within the realm of certainty, while the existence of external objects required further consideration. This may be seen in the following:

> In one sense it must be admitted that we can never prove the existence of things other than ourselves and our experiences. No logical absurdity results from the hypothesis that the world consists of myself and my thoughts and feelings and sensations, and that everything else is mere fancy. . . . There is no logical impossibility in the supposition that the whole of life is a dream, in which we ourselves create all the objects that come before us. But although this is not logically impossible, there is no reason whatever to suppose that it is true; and it is, in fact, a less simple hypothesis, viewed as a means of accounting for the facts of our own life, than the common-sense hypothesis that there really are objects independent of us, whose action on us causes our sensations.
>
> The way in which simplicity comes in from supposing that there really are physical objects is easily seen.[32]

If the interpretation thus far has been correct, Russell here tended strongly to accept the self, but on seriously defective grounds. If such be the case, his later reaction to this acceptance seems hardly surprising.

---

[32]Russell, The Problems, pp. 22-23.

But whether on defective grounds or not, Russell depended on the use of a subjective reference in his argument for the existence of objects other than oneself and one's experiences. That is, one's own experience was used as a basis from which to assign experiences to other beings. Without an inference based on one's subjective standpoint, Russell believed that certain sense-data are inexplicable.

> If the cat exists whether I see it or not, we can understand from our own experience how it gets hungry between one meal and the next; but if it does not exist when I am not seeing it, it seems odd that appetite should grow during non-existence as fast as during existence. And if the cat consists only of sense-data, it cannot be hungry, since no hunger but my own can be a sense datum to me. Thus the behaviour of the sense-data which represent the cat to me, though it seems quite natural when regarded as an expression of hunger, becomes utterly inexplicable when regarded as mere movements and changes of patches of colour, which are as incapable of hunger as a triangle is of playing football.
>
> But the difficulty in the case of cats is nothing compared to the difficulty in the case of human beings. When human beings speak--that is, when we hear certain noises which we associate with ideas, and simultaneously see certain motions of lips and expressions of face--it is very difficult to suppose that what we hear is not the expression of a thought, as we know it would be if we emitted the same sounds.[33]

The argument of this passage is quite significant for the maintainence of the principle of subjective reference. The idea that one's sense-data can sometimes be understood as an expression of the experience of other beings is based on an inference from the standpoint of a participating subject, not merely on what is immediately observed. One attributes hunger, for instance, to another being, not because hunger is a factor

---

[33] Ibid., pp. 23-24.

in his observation of another being, but because the data become understandable by the inference that another being is behaving as the observer might if he were hungry and were in its place. One thus infers from his own subjective standpoint to the subjective standpoint of another.

The admission of such an inference is important for the interpretation of experience since neither one's subjective standpoint, nor the subjective standpoint of another being, is given as an object in sense data. This is perhaps most obvious in the case of a being other than oneself. As Russell put it, "And if the cat consists only of sense-data, it cannot be hungry, since no hunger but my own can be a sense-datum to me." This significant statement allows only one particular subjective reference for a particular datum, since if one is aware of hunger as a sense-datum, it is his hunger only which is known. On this basis, if one infers that some other being is hungry, he infers the existence of some other experiencing standpoint as an existent factor which is not given as a sense-datum. Also, this inference is based on a reference to one's own subjective standpoint, in terms of which alone any hunger can be known at all, much less be attributed to some other being. But one's own standpoint would seem to be no more a datum than the cat's, since one's hunger is a datum to him even when he is not a datum to himself--if indeed he ever could be. Thus, one must either conclude that there are more existents than can ever be present to experience

in the capacity of data, or else change the estimate of oneself and the cat.

To express this immediate sense-experience in Russell's later style, one might say, "There is hunger." But the earlier Russell gave good reason to suppose that this formulation omits an important factor--the explicit reference to some subject who knows that "there is hunger," because he is hungry. Without such a reference, the statement can lay no claim to the certitude of immediate experience. Apart from some reference to an experiencing standpoint, one has no reason for judging the statement true in preference to its negate, "It is false that there is hunger." One may ask, in accordance with the earlier Russell, whether the hunger is one's own, the cat's, or some other being's. Also, is it known <u>immediately</u>? For any hunger which one attributes to the cat is not an immediate datum, and any hunger which is an immediate datum can only be one's own. Without a reference, implicit or explicit, to one's own standpoint, there is no basis for asserting that the statement, "There is hunger," expresses a fact about <u>immediate</u> experience. For whose <u>immediate</u> experience does one have access to, except his own?

While Russell set forth arguments which tend to support the principle of subjective reference, these arguments were interspersed with others in which may be discerned the seeds of its rejection. An indication of later developments was contained in his definition of <u>acquaintance</u>.

> We shall say that we have acquaintance with anything of which we are directly aware, without the intermediary of any process of inference or any knowledge of truths.[34]

A significant characteristic of this definition is that whatever is known by acquaintance must be known as an object. There is little provision for a subject, except as assumed in the fact that someone has acquaintance with something. Of course, in so far as a subject, if any, can be known as an object, it can be known by acquaintance, but there remains a question as to what extent this may be possible. Thus, if acquaintance is credited with exhausting the factors of immediate experience, a subject which could not be present as an object would be excluded, a priori, whether it existed or not. The position of the subject, then, was indeed precarious.

When it is said in this manner that knowledge by acquaintance is limited to "objects," what is meant is not necessarily external objects, but data, in the sense that one is directly aware of data. A "subject" would be something which is aware of, or is acquainted with the data. For a time, Russell accepted such a "subject," but did not provide for the possibility that the subject might not be fully capable of being apprehended as an "object."

Failure to allow for this possibility becomes important in the light of the scope which was attributed to acquaintance. Russell wrote: "All our knowledge, both knowledge of things

---

[34] Ibid., p. 46.

and knowledge of truths, rests upon acquaintance as its foundation."[35]

This foundation implies that the totality of objects of acquaintance is exhaustive of the realities present in immediate experience. A subject which could not fully assume the role of an object is thereby excluded. This was made more explicit in Russell's treatment of introspection:

> The next extension to be considered is acquaintance by introspection. We are not only aware of things, but we are often aware of being aware of them. When I see the sun, I am often aware of my seeing the sun; thus 'my seeing the sun' is an object with which I have acquaintance.[36]

It is clear in this statement that his introspection would yield only objects of acquaintance, and the possibility of a subject which does not conform to the object-role was not covered. It is held that the possibility was not covered on the ground that it could only have been covered elsewhere by contradicting the scope of the following statement:

> This kind of acquaintance, which may be called self-consciousness, is the source of all our knowledge of mental things.[37]

Russell's adherence to the object-status in the two passages just quoted is rejected in this paper. In the view which this paper represents, "my seeing the sun" can be regarded as a fact whether it is an object of acquaintance or not. "My

---

[35] Ibid., p. 48.

[36] Ibid., p. 49.

[37] Ibid., p. 49.

seeing the sun" is as much a fact when "I see the sun" as when "I am aware of my seeing the sun." Furthermore, in the former of these two cases, "my seeing" is the immediate experience, even though it is not the object of acquaintance. But in the second case, "my seeing" is once removed from the immediate experience, since what is immediate is my awareness of "my seeing."

If "my seeing the sun," and "my awareness of my seeing the sun" can occur simultaneously, there are still two subjective references to be considered. The first is to "my seeing," which is distinguishable in the sense that it could occur without introspection. The second is to "my awareness of my seeing." Since, as Russell said, my seeing is an object "with which I have acquaintance," the subjective reference here must be to the "I" which has acquaintance. The "I" which sees and the "I" which is aware of seeing may be identical, but it would seem uncertain yet whether they are or not.

Until it is known that these two experiencing subjects are the same, one has no right to assume that the totality of objects of acquaintance can yield all the existent factors of immediate experience. For if the subject which is aware of seeing is different than the subject which sees, then the totality of objects of acquaintance cannot exhaust all the existent factors of immediate experience. At best the object-status could exhaust all factors except one, i.e., the subject which is acquainted.

At this point, the problems incurred by Russell's approach appear to be rather acute. Assuming the validity of the principle of subjective reference, it could be concluded that Russell's doctrine of acquaintance is deficient, since it admits objects only, or subjects in so far as they can be objects. However, without assuming the principle of subjective reference to be either proved or disproved, it may be noted that Russell failed to show the adequacy of his doctrine of acquaintance. For so long as there remains the possibility that there is a subject, and the possibility that it is always once removed from the totality of objects in immediate experience, the doctrine cannot rightly be said to account for the factors present in immediate experience. These possibilities should have been considered, since Russell wished to assert that <u>all</u> knowledge rests on acquaintance. Before one can justifiably use <u>all</u> in this way, he must be prepared to show that exceptions are impossible. Even one exception would invalidate such an assertion.

To accept the doctrine of acquaintance is to place the subject of experience in a very precarious position. The subject must be completely susceptible to being an object of acquaintance, or else it must be rejected, since it then would be something with which one is not acquainted. Perhaps the subject could be known by description, but even so, it could not be regarded as a factor having the certainty of immediate

experience, as do objects of acquaintance. The fate of the subject, then, appears to be determined within the bounds of very limited alternatives in Russell's approach. For as long as one can assume that the subject is completely amenable to the object-status, one may retain both the subject and the doctrine of acquaintance. However, if one thus assumes that the object-status be adequate, the subject may soon appear to be but an unnecessary appendage. For of what use is a subject, if a totality of objects is adequate to the interpretation of immediate experience? And if there is no subject, of what use is it to think of the data as objects? Thus, while the subject could possibly be maintained in accord with the doctrine of acquaintance, its status is uneasy at best. It is not only open to attack, as is any factor, but it is robbed of all raison d'etre.

This alternative rests on the assumption that the subject is completely amenable to the object-status. But the moment such an assumption seems untenable, one must reckon with another alternative. In this case, the supposedly exhaustive doctrine is beset by a left-over factor in immediate experience, i.e., a subject with which one can never be fully acquainted as an object. This means that one must either modify the doctrine of acquaintance to accomodate such a subject, or reject the subject. If one simply accepts the doctrine of acquaintance as a criterion, he automatically, a priori, excludes any item which is not

amenable to the object-role. Consequently, maintaining the doctrine, there would be no room for any subject which is not available as an object. It is possible that the subject might be rejected on justifiable grounds, but if one simply invokes the doctrine of acquaintance as a criterion, he has done no more than to say, "There is no subject unless it is an object."

In these straits, it is surprising that the "I" fared as well as it has in Russell's thought, when apparently so much militated against its survival. The "I" was so conceived as to make its acceptance rest on very shaky grounds. Dissatisfaction with such grounds was almost sure to come, and a change of position would naturally follow. The question as to what "I" is accepted or rejected may harass the course of developments, since the early treatment of the "I" seems dangerously confused. Russell's approach has unduly constricted the alternatives in terms of which the "I" would be accepted or rejected, and one cannot therefore follow with confidence either his early acceptance or his later rejection, unless the difficulties have been overcome.

There are cases, however, in which Russell does not seem to have been bound by the constrictions which have been elaborated. It is essential then, to consider some of his statements concerning acquaintance, which apparently contradict the criticism that acquaintance is falsely limited to a totality of objects. The following statement plainly differentiated the self from the objects of acquaintance:

> We have spoken of acquaintance with the contents of our minds as self-consciousness, but it is not, of course, consciousness of our self: it is consciousness of particular thoughts and feelings. The question whether we are also acquainted with our bare selves, as opposed to particular thoughts and feelings, is a very different one, upon which it would be rash to speak positively. When we try to look into ourselves we always seem to come upon some particular thought or feeling, and not upon the 'I' which has the thought or feeling. Nevertheless there are some reasons for thinking that we are acquainted with the 'I'.[38]

It might seem that here was provided exactly the subjective reference which the present thesis endorses. However, while the "I" was accepted, that very acceptance was apparently beset by the constrictions which have been cited. The role of the "I" was still dangerously confused. At one point Russell spoke of "our bare selves, as opposed to particular thoughts and feelings." This assumes that there is a self, but on what basis? And in what sense is it opposed to particular thoughts and feelings? In speaking of one's coming upon particular thoughts and feelings, he mentions "the 'I' which has the thoughts or feelings." This would seem to identify the "I" as the "something" which was a factor in his "solid basis." However, if Russell meant it that way, why would he not have accepted the "I" of the *cogito*, instead of claiming that the *cogito* asserted "rather more than is strictly certain?" If there is an "'I' which has the thought," it is as certain as the thought. Most important, however, is the tentative relation drawn between the "I" and acquaintance.

---

[38] *Ibid.*, p. 50.

Russell admitted that one seems not to come upon the "I", but he did not choose to affirm that one cannot. Instead, he developed reasons "for thinking we are acquainted with the 'I'." That he so conceived the problem is significant, for it might well be wondered what would have been his conclusion had he believed that one cannot come upon the "I" as an object of acquaintance. Would he have held to the acceptance of the "I" despite the belief that it could not be an object of one's acquaintance? Had such a possibility been duly considered, it would have forced a more definite decision regarding the status of the "I" and the nature of acquaintance. For here was the possibility of there being something existent in immediate experience with which one cannot be acquainted. To face such a possibility, one must either deny the possibility, or else modify the doctrine of acquaintance. But Russell did not seem to recognize that a possibility of this kind created a problem for his approach, since he was content to argue that one probably has acquaintance with himself, even though it would be unwise to assert this as certain.[39] Thus, while Russell raised the question as to whether one is acquainted with himself or not, he dealt only with the possibility that one is. This results in a very unsatisfactory status for the "I". It neither assures one that he can be acquainted with the "I" nor

---

[39]Ibid., p. 51.

tells him what to do with the "I" if he cannot be acquainted with it.

In another statement, Russell described acquaintance as a subject-object relation, and seemed again to have rendered the present criticism of acquaintance false:

> When I am acquainted with 'my seeing the sun,' it seems plain that I am acquainted with two different things in relation to each other. On the one hand there is the sense-datum which represents the sun to me, on the other hand there is that which sees this sense-datum. All acquaintance, such as my acquaintance with the sense-datum which represents the sun, seems obviously a relation between the person acquainted and the object with which the person is acquainted.[40]

Despite the reference here to the person acquainted, the same question arises--namely, was Russell's acceptance of the subject hinged on the possibility of one's having acquaintance with the subject as an object? As has been pointed out, it is possible to maintain both the subject and the doctrine of acquaintance, provided that the subject is available as an object. But if there is a subject which cannot be caught as an object, then there is a factor in immediate experience with which one cannot be acquainted as an object, and the doctrine of acquaintance should be modified to accomodate that factor. The question is, then, was Russell's acceptance of the subject based on the assumption that it could be an object

---

[40] Ibid., p. 51.

of acquaintance, and would his acceptance fall with the assumption, if the assumption proved false? So long as the assumption could prevail, there would be no real test of his acceptance of the subject. Acquaintance would still yield only a totality of objects, but this totality would be adequate to include the subject. But if the possibility of acquaintance with the subject had been seriously questioned, would the subject have been maintained regardless? There would have been a mutual challenge, such that either the subject must be rejected, or the idea that factors "one is acquainted with" are adequate to account for immediate experience.

It would seem that Russell's doctrine of acquaintance must be given priority over his acceptance of the subject, so that in a test between the two, the subject must be the first to go. The strong propensity for identifying acquaintance in terms of the object-status cannot be ignored, especially when introspection was concerned. This propensity is evident in the following passage:

> Further, we know the truth 'I am acquainted with this sense-datum'. It is hard to see how we could know this truth, or even understand what is meant by it, unless we were acquainted with something which we call 'I'. It does not seem necessary to suppose that we are acquainted with a more or less permanent person, the same today as yesterday, but it does seem as though we must be acquainted with that thing, whatever its nature, which sees the sun and has acquaintance with sense-data. Thus, in some sense it would seem that we

> must be acquainted with our Selves as opposed to particular experiences. But the question is difficult, and complicated arguments can be adduced on either side. Hence, although acquaintance with ourselves seems probably to occur, it is not wise to assert that it undoubtedly does occur.[41]

Thus, in dealing with the "I", which could most likely of all items cause a breach in the adequacy of the object-status, Russell was content to hope he could get at the "I" as an object of acquaintance, granting that the "I" also is a subject of acquaintance. If the object-status is assumed to be adequate in this extreme case, there can hardly be any further challenge to its adequacy. A totality of objects of acquaintance will then apparently account for the factors of immediate experience. But if the "probability" of acquaintance with the "I" fails, the fate of the "I" is sealed. It cannot then belong to the totality of factors in immediate experience.

The interpretation of acquaintance in terms of the adequacy of the object-status is cemented even more firmly in the discussion of descriptions:

> The fundamental principle in the analysis of propositions containing descriptions is this: Every proposition which we can understand must be composed wholly of constituents with which we are acquainted.[42]

---

[41] Ibid., p. 51.

[42] Ibid., p. 58.

If one cannot be acquainted with himself, i.e., if one cannot be an object of acquaintance to himself, no term referring to him could qualify, then, as a constituent. However, as long as Russell continued to assume this self-acquaintance,[43] he did not have to face the problem. One can only note that sooner or later, the problem was bound to exact a more definite decision as to the status of the subject.

In concluding the consideration of the views expressed in The Problems of Philosophy, some mention should be made concerning Russell's description of judgment and belief. In his views on these points, one is led to wonder further at the nature of Russell's appraisal of the cogito.

> In every act of judgement there is a mind which judges, and there are terms concerning which it judges. We will call the mind the subject in the judgement, and the remaining terms objects.[44]

It would seem that this doctrine is based on the same constituents as the cogito. However, one cannot be sure just how certain Russell intended the status of the subject of a judgement to be, in view of his criticism of the cogito. If the mind can be identified with the "I" as a more or less permanent person, then, "rather more than is strictly certain" has been claimed for the subject of a judgment. If, on the other

---

[43] Ibid., p. 54.

[44] Ibid., p. 126.

hand, the subject has a status comparable to the "something which sees the brown colour," it has the certainty of immediate experience. In this case, the view suggested in this paper is that the subject should have been recognized as the "I", making the "I" a constituent in immediate experience. However, because of Russell's explicit criticism of the "I" of the cogito, one must assume that he would similarly have criticized the formulation, "I judge, therefore I am."

The same essential constituents are found in the structure of belief:

> When an act of believing occurs, there is a complex, in which 'believing' is the uniting relation, and subject and objects are arranged in a certain order by the 'sense' of the relation of believing.[45]

It would seem that the subject here would allow one to say "I believe, therefore I am." But, of course, the same problem of identifying the subject is still present, and the same conflict between the approach of this thesis and the approach of Russell. Russell's approach would lead one to say that he cannot be sure the subject of belief is the "I". But the problem of attaining certainty in this matter may be easily misconceived, for if one believes that the subject of belief is the "I", he himself thus becomes a subject of belief, and consequently supports his appraisal of belief. Is this a mere play on words? Not if anyone actually believes it to

---

[45] Ibid., p. 127.

to be a play on words. Furthermore, if the subject of one's believing is not really himself, how could he know that there is a subject, since it could only be presented to him as an object? If it be argued that he could infer it, then on what basis? He can infer it from his own case only if he is a subject. Thus, the failure to identify the subject as the "I" of the cogito makes the subject untenable, since it can neither be observed, nor, once omitted, can it be inferred.

It is contended therefore that Russell improperly criticized the "I" of the cogito, and that the error was reflected throughout his early treatment of the subject-object relation. The result was to weaken both the status of the "I" and of the subject-object relation, and to carry a serious predicament to his later thought. For Russell sought both to base all knowledge on the objects with which one has acquaintance, and to maintain the subject-relation in experience. Thus, either there must be reflexive acquaintance with the subject, or else the subject must become something with which one has no acquaintance. In the latter case, if one accepts the existence of the subject, he admits that there exists in immediate experience something with which he has no acquaintance. Or, if one gives priority to the doctrine of acquaintance, then he cannot accept the existence of the subject.

In view of the fact that Russell had set forth the theory of logical types, it seems possible that in his analysis of experience a reflexive acquaintance might not long prove

acceptable, and that Russell could not long avoid encountering the subject as an item with which one has no acquaintance. For if oneself involves all of a collection of objects with which one is acquainted, could oneself be one of the collection? And if oneself is not one of the collection, does the collection exhaust the constituents of immediate experience.

However, it is not necessary to assume that abstract logic exerted an influence in analysis of immediate experience. The difficulty present by adherence to the doctrine of acquaintance may be seen in the following discussion by Werkmeister, in which he indicated the problem of arriving at the "I" by introspection:

> Introspection reveals the experiencing subject only as an elusive and undefinable "point of reference," and no matter how narrowly we restrict our reflective thoughts to "ourselves," the "I" which reflects and the "I" reflected upon remain logically differentiated. The "thing which thinks," i.e., the "mind" or "soul," is as much "object" of reflection as is a "tree" or a "dream," and it cannot be directly identified with the "subject" which "reflects." The "indubitable certainty" of the latter, therefore, does not justify deductions which presuppose the former.[46]

Whether Werkmeister is exactly right or not in this statement, it serves to indicate the problem which had been incurred in Russell's approach. For if Russell were to decide that he could not catch the "I" as something with which he is acquainted, another decision would be forced. He must then relinquish the

---

[46]Werkmeister, A Philosophy of Science, p. 85.

"I" as a subject, or else modify the doctrine of acquaintance. It is contended in this paper that such a decision was probably forced, on the grounds that had Russell decided he could catch the "I" as something with which he was acquainted, he would have had no reason for abandoning his early acceptance of the "I" as a proper name.

In his famous essay, "Knowledge by Acquaintance and Knowledge by Description," Russell affirmed his view of acquaintance as a subject-object relation. The following passage will illustrate:

> In the second place, the word acquaintance is designed to emphasise, more than the word presentation, the relational character of the fact with which we are concerned. There is, to my mind, a danger that, in speaking of presentation, we may so emphasise the object as to lose sight of the subject. The result of this is either to lead to the view that there is no subject, whence we arrive at materialism; or to lead to the view that what is presented is part of the subject, whence we arrive at idealism, and should arrive at solipsism but for the most desperate contortions. Now I wish to preserve the dualism of subject and object in my terminology, because this dualism seems to me a fundamental fact concerning cognition. Hence I prefer the word acquaintance, because it emphasises the need of a subject which is acquainted.[47]

With this passage, the present paper has no explicit quarrel. It is simply observed that the passage does not tell us what will happen if the "subject which is acquainted" proves to be something with which that subject cannot itself be

---

[47]Bertrand Russell, "Knowledge by Acquaintance and Knowledge by Description," Mysticism and Logic and other Essays (London, 1921), p. 210.

acquainted. In other words, the problem which has been described is simply dormant, for Russell evidently assumed that acquaintance with the "I" is possible. Had he assumed such acquaintance impossible, the status of the subject would have been already challenged.

In at least one case, however, Russell did consider explicitly the possible case in which the "I" is not a direct object of acquaintance. He reasoned as follows:

> It is plain that we are not only acquainted with the complex "Self-acquainted-with-A," but we also know the proposition "I am acquainted with A." Now here the complex has been analyzed, and if "I" does not stand for something which is a direct object of acquaintance, we shall have to suppose that "I" is something known by description.[48]

The alternatives for the "I" in this passage are important. If the "I" is not one of the totality of objects of acquaintance, then it is known by description. The effect of these alternatives is to make the maintainance of the subject as a factor in immediate experience increasingly difficult. If the subject cannot be an object, then it cannot have the certitude of immediate experience. If the subject becomes a derivative consideration, possibly known by description, it still cannot have the certitude of immediate experience.

However, there was evidence of the tacit acceptance of the "probability" that there is a reflexive acquaintance. Russell's argument as to how Bismarck could make a judgment about himself

---

[48] Ibid., p. 211.

as a constituent, with the proper name standing for an object, not a description, was evidently an argument posited on the assumption that there is such a thing as acquaintance with oneself.[49]

The Bismarck illustration shows also the plight of the "I" if the assumption of reflexive acquaintance fails. For to others, Bismarck is known by description, and, if reflexive acquaintance fails, he would be known to himself likewise by description. In this case, Bismarck could no longer refer to himself with the proper name standing for an object instead of a description. There would be no more chance for "I" to stand as a proper name. Thus, the questionable assumption of reflexive acquaintance held the key to significant changes.

Russell apparently did not seriously expect to encounter the breakdown of the assumption of reflexive acquaintance. For he proceeded on the acceptance of views which are reminiscent of the cogito, and in which the principle of subjective reference seems quite safe:

> To begin with judgments: a judgment, as an occurence, I take to be a relation of a mind to several entities, namely, the entities which compose what is judged.
> . . . . . .
> But myself and judging are constituents shared by all my judgments.
> . . . . . .

---

[49] Ibid., p. 216.

> Supposing, like judging, is a many-term relation, of which a mind is one term.[50]

But as comfortably established as the subject seems in these passages, one does not have to proceed one page to be reminded that the restrictive power of the object-status was also present:

> Thus the principle which I enunciated may be restated as follows: Whenever a relation of supposing or judging occurs, the terms to which the supposing or judging mind is related by the relation of supposing or judging must be terms with which the mind in question is acquainted. This is merely to say that we cannot make a judgment or a supposition without knowing what it is that we are making our judgment or supposition about.[51]

This last sentence especially sounds so sensible as to leave one nodding his head in approval; but if one looks carefully, he may see that judging is bound to a totality of objects of acquaintance. Also since the judging subject is still considered a reality, we may discern again the assumption that this subject will not disturb the adequacy of the object-status, i.e., that it may have itself as an object of acquaintance. The extent to which Russell relied on this assumption may be judged from the following:

> And I should hold further that, in this sense, there are only two words which are strictly proper names of particulars, namely, "I" and "this."[52]

---

[50] Ibid., pp. 219-220.

[51] Ibid., pp. 220-221.

[52] Ibid., p. 224.

It does not seem that Russell would have asserted this if he was much worried about the possibility of one's not being an object of his own acquaintance. And because self-acquaintance was so firmly entrenched in his views, there was as yet no stirring of the conflict latent in the doctrine of acquaintance and the status of the subject.

There is an instance of agreement between the present paper and Russell's early approach with respect to a rather important point. In discussing judgment as an occurence with a mind as one of its constituents, Russell explained his reference to a mind as follows:

> I use this phrase merely to denote the something psychological which enters into judgment, without intending to prejudge the question as to what this something is.[53]

This statement agrees with the suggested view that the subjective reference can legitimately indicate the existence of a subject without fully defining its nature. That is, one can know that a subject is, even if he does not know just what it is.

This concludes the consideration of some characteristics of Russell's early approach, and their possible significance for his later thought. Among the characteristics noted has been the precarious status of the subject of experience; Russell's propensity for accepting it anyway; and the latent clash between

---

[53] Ibid., p. 231.

the acceptance of the subject and the acceptance of the doctrine of acquaintance.

The Subsequent Change

In The Analysis of Mind, there was a resolution of the difficulties attending Russell's previous acceptance of the experiencing subject. The resolution was effected by rejecting the subject as an existent in immediate experience. To consider this change of position is the purpose of this section.

The following passage will serve to indicate the change which had taken place.

> The first criticism I have to make is that the act seems unnecessary and fictitious. The occurence of the content of a thought constitutes the occurence of the thought. Empirically, I cannot discover anything corresponding to the supposed act; and theoretically I cannot see that it is indispensable. We say: "I think so-and-so," and this word "I" suggests that thinking is the act of a person. Meinong's "act" is the ghost of the subject, or what was once the full-blooded soul. It is supposed that thoughts cannot just come and go, but need a person to think them. Now, of course it is true that thoughts can be collected into bundles, so that one bundle is my thoughts, another is your thoughts, and a third is the thoughts of Mr. Jones. But I think the person is not an ingredient in the single thought: he is rather constituted by relations of the thoughts to each other and to the body. This is a large question, which need not, in its entirety, concern us at present. All that I am concerned with for the moment is that the grammatical forms "I think," "you think," and "Mr. Jones thinks," are misleading if regarded as indicating an analysis of a single thought. It would be better to say "it thinks in me," like "it rains here;" or better still, "there is a thought in me." This is simply on the ground that what Meinong calls the act in thinking is not empirically

> discoverable, or logically deducible from what we can observe.[54]

This statement will require detailed attention. First, when the "act" is regarded as "fictitious," one could simply proceed to evaluate the reasons, but when the "act" is regarded as "unnecessary," a certain standard is introduced which bears watching in itself. "Unnecessary" does not speak to the same alternatives as does "fictitious." The latter represents simply an opinion as to whether there really is the act or not. The former, however, by-passes this direct question, and asks if a hypothesis (that there is the act) is "indispensable" to some purpose, such as the rendering of an account of experiences. With respect solely to the question, "Is there really the act?" the act cannot be "unnecessary." It either is real or not. With respect to rendering an account, the act might seem necessary but have no other reality than as a factor in explanation; or the act might seem unnecessary and still be an existent brute fact. Thus, in deciding what <u>is</u> real in the experience of thinking, one must remember that the ability to give an account of thinking which does not include the "act" still leaves undetermined the question as to whether there really is the "act." When the existence of a factor is the point in question, the existence or non-existence of the factor determines what account is necessary; the account does

---

[54]Bertrand Russell, <u>The Analysis of Mind</u> (London, 1921), pp. 17-18.

not determine whether the factor is necessary. This would not perhaps be important, except for the common tendency to assume that the account which involves a minimum of factors is best.

This suggests that one should primarily attend to the direct question, "Is the act fictitious or not?" Since Russell regarded Meinong's act as "the ghost of the subject," one may expect that the logical constrictions which have been shown to beset the subject may also beset the act, unless, of course, Russell's development had by that time freed him from these constrictions. However, to adhere to the direct question above, and sort out its treatment from the discussion of what is "necessary" for purposes of theory, one finds essentially the following: "Empirically, I cannot discover anything corresponding to the supposed act. . . ."

To this, perhaps Meinong could simply have opposed, "I can." However, the present paper is concerned with this matter only in so far as it concerns the fate of the subjective reference, which Russell seemed to have considered as closely related to Meinong's "act." The question is--what could Russell have discovered empirically, within the confines of his approach? It is hard to believe that the alternatives incurred by his approach were essentially changed, when he "found" exactly what its difficulties would have led him to find. He found exactly what was compatible with a totality of objects of acquaintance. The content of thought seemed adequate. The subject, previously in a precarious position, disappeared.

It would seem that both the act and the subject were placed in the predicament that Russell could discover empirically nothing but objects of acquaintance, and that he had been forced to abandon the assumption of reflexive acquaintance. At this point, one can say with assurance that Russell did abandon the assumption, for otherwise he would have retained the subject as a constituent of the content of awareness. The rejection of the subject also emphasizes the priority which had been granted to the object-status in acquaintance, for once acquaintance with the subject was abandoned, Mr. Russell's previous commitment to the existence of the subject, and his insistence on the restriction to "what we are acquainted with," were brought into direct conflict. The fact that the subject was rejected indicates the force of Russell's identification of acquaintance with the object-status, such that a totality of such objects is assumed to exhaust what is "empirically discoverable." However, this conclusion can only be an estimate of what happened, of course, since Russell could have arrived at the conclusions he did for entirely different reasons.

Whether or not one can empirically discover the act or the subject is a question in which standpoint is of extreme importance. It seems unlikely that either would be found as objects only. Kant's views are helpful in this respect, since he argued that, even though a free act on the part of a moral agent is possible, the observation of such an act yields only a sequence of apparently determined causal patterns. In this

sense, whether there is or is not the act, it is not "empirically discoverable" from an observational standpoint, i.e., a standpoint which considers only what can be observed. But this shows an inherent limitation of the observational standpoint, not necessarily of reality--since such a standpoint could not yield the discovery of an act if there was one. And if the range of what is "empirically discoverable" is identified with this standpoint, then that range too will be inherently indecisive as to whether there is, or is not, an act. In such a case, one would merely be reporting faithfully a limitation of his standpoint if he said, "Empirically, I cannot discover anything corresponding to the supposed act."

For this reason the present paper maintains the importance of the standpoint preserved by the principle of subjective reference--the standpoint from which the act is known through participation, rather than as an object of observation. From this standpoint, the existence of the act depends on whether one performs it, not on whether he is ever able to observe his performing it. It should not be surprising if the act as an immediate experience disappears upon one's attempt to observe it, since in this case immediacy is transferred to one's observing. When the act, then, is consigned to be either an object of our observation or nothing, and is not found as an object, the alternative is obvious. However, there may be an act which is real but is not an object of observation, since

the case that observation itself can be the immediate act is at least a possibility.

But from a participant's standpoint, can one know that there is an act or a subject? This question itself is in danger of presupposing the adequacy of the object-status for the act and the subject. It would seem that if one knows anything, he participates in knowledge. In this sense, one's participating is not so much an object of knowledge, as a presupposition of knowledge. As a presupposition of knowledge, it is ultimate for knowledge, and must not itself be justified by appeal to some other "more ultimate" criterion. This view does not exclude one's knowing about acts or subjects as objects in some senses. For instance, a factor can be an object of assertion even when it cannot be an object of observation, as one can discuss the Kantian act even if he cannot see it. But the view certainly excludes the identification of knowledge of matters of fact with certain uses of observation as a criterion, such that matters of fact are conceived as a totality of objects of observation.

It is difficult to say to what extent the limits of the observational standpoint governed Russell's conception of "matters of fact." For while it appears that such a standpoint led him to reject the subject as a factor in immediate experience, one cannot be sure as to how complete a rejection was made. The rejection seems unequivocable at times, but the subjective character of individual experience seems to be presupposed

throughout. Russell argued that "the person is not an ingredient in the single thought," and that the grammatical form "I think" is misleading if regarded as indicating the analysis of a single thought. However, he accepted as a revision, "there is a thought in me." It would seem that this revision still involved some relation between "a thought" and "me," even if "I" am a bundle of thoughts. Furthermore, such a relation must be special enough to make the idea of immediate experience meaningful. If there are thoughts without thinkers all over the place, this does not change the fact that for one to be immediately aware of some, there must be some relation which leads one to call some of these thoughts his. Immediate experience involves not only thoughts, but thoughts in the role of being someone's thoughts at the time. Thus the totality of thoughts which might exist, or the totality of thoughts which might constitute a person, are not the same as the totality of thoughts defined by a given range of immediate experience.

If immediate experience is in question then, one must use some principle to distinguish a given range within the host of thoughts which may exist, or which "come and go." The principle of subjective reference defines such a range of thoughts in terms of their being experienced by a subject. The subject is maintained as a factor in immediate experience on the ground that if it were removed from immediate experience there would be an impasse between the experience and whatever is aware

of it. A mediating factor would then be necessary, and the experience in question would not be immediate to whoever is supposedly aware of it. If one calls a given range of immediate experience his, it would seem that a "he-thought" relation must be maintained. For if there are thoughts which have no relation to him, they are not certaintly factors which he immediately experiences.

Thus, while "I think" may be misleading as to the analysis of all the single thoughts that may exist, it is not necessarily misleading as to the analysis of a thought as a constituent of immediate experience. Perhaps thoughts do not need a person to think them, but whenever anyone has thoughts, there is a he-thought relation. And this relation will hold for any thoughts with which one is ever acquainted, or which ever come within the scope of human knowledge. It is not the same to discuss the private life of a thought as it is to discuss one's immediate experience of thoughts. There may be many thoughts whose acquaintance one will never make, but unless he does, they can never be constituents of his immediate experience.

Russell did state that thoughts can be collected into bundles, so that one bundle is "my" thoughts, one is "yours," and so on. But one must understand this in relation to the denial of the subject-thought relation in immediate experience. It is important to remember here Russell's earlier contrast between the "more or less permanent person," which now has become a "biography," and "the something which sees the brown colour,"

which now is rejected--at least as a constituent of immediate experience. It would seem that in such an approach there is no satisfactory link between the "biography" concept and immediate experience. When the "I" is not a constituent of immediate experience and is identified as a biography, it is hard to see how one can ever have immediate experience.

As has been true throughout the consideration of Russell's relation to the cogito, one finds him so near to the acceptance of its "I," and yet so far away. It seems at some points that he accepts exactly the ingredients of the cogito, and yet one is confronted with his explicit rejection. It would seem, for instance, that the subjective reference is maintained in the following: "Subjectivity is the characteristic of perspectives and biographies, the characteristic of giving the view of the world from a certain place."[55]

However, this characteristic is plainly differentiated from involvement with consciousness, experience, and memory. It is compared to the function of a photographic plate, and is called the "'passive' place of a particular."[56] In contrast, the present thesis regards the subjective reference as applying to a participant self in any of the ranges of experience, active or passive, whether judging, acting, observing, believing,

---

[55]Russell, The Analysis of Mind, p. 296.

[56]Russell, loc. cit.

feeling, affirming, denying, knowing, or playing baseball. Any of these things, as immediately experienced, involve a reference to a self which experiences at the time in question. Whatever this self is, when it is involved in an experience, the Cartesian form "I experience" still seems most adequate to express the subjective reference, since it is applicable to any participating subject at any time. That is, "I experience" or "I have experiences" refers to whoever is engaged in the experience of considering such a proposition. To say, "There are experiences," tells us nothing definite about a given range of immediacy. To say, "Someone has experiences," may seem properly impersonal, and would be true if it were so much as considered by anyone. But if impersonal, it is also indefinite. While "someone" can by chance refer to the right experiencing self, "I" refers to no one else than the one who is experiencing self, "I" refers to no one else than the one who is experiencing something. Thus, the cogito is closer to expressing the relations of immediate experience than any suggestion which has been found in Russell's approach.

In The Analysis of Matter, there seems to be no significant change in Russell's viewpoint. In discussing what he considered to be epistemologically primitive, he listed sense-data, relations among these items, recollections, and expectations. He considered that relations among particular experiences effect

"localization in the body,"[57] and thus can account for biographies. Valid knowledge was to consist of these primitive factors plus legitimate constructs of inference. Russell contrasted this view with his former ones as follows:

> In the above account, I have omitted many things which I formerly "knew," and which, apparently, most other people "know." I have omitted "objects." In former days, my apparatus of non-inferential knowledge included tables and chairs and books and persons and the sun and stars. I have come to regard these things as inferences. I do not mean that I inferred them formerly, or that other people do so now. I fully concede that I did not infer them. But now, as the result of an argument, I have become unable to accept the knowledge of them as valid knowledge, except in so far as it can be inferred from such knowledge as I still consider epistemologically primitive.[58]

It is not clear how far back the "former days" were supposed to go, but it seemed that in The Problems of Philosophy, Russell had already based the knowledge of the existence of other persons and of the famous cat upon inference. He showed very ably why the cat was not a mere collection of one's sense data, and why one must infer to assign existence to other people.

The primitive items, plus inferential constructs, could not, of course, yield another existent factor--such as a subject of the data, which is not itself one of the data. For Russell held that nothing existent can imply any other existent

---

[57]Bertrand Russell, The Analysis of Matter (New York, 1927) pp. 180-181.

[58]Ibid., p. 181.

except a part of itself.[59] Since there was admitted no self as an ingredient in the particular experiences, none could later be inferred.

While "objects," meaning the inferred items in the passage just quoted, are denied, the object-status of existents still appears to be maintained.

> The metaphysic which we have been developing is essentially Berkeley's: whatever is, is perceived. But our reasons are somewhat different from his. We do not suggest that there is any impossibility about unperceived existents, but only that no strong ground exists for believing in them. Berkeley believed that the grounds against them were conclusive; we only suggest that the grounds in their favour are inconclusive. I am not asserting this; I am proposing it as a view to be considered.[60]

From the standpoint of this paper, it is good to read that there is at least the possibility of unperceived existents. However, the important point in this passage concerns the side of Berkeley's view which is omitted--that is, the subjective reference to perception as an experience--"To be is to perceive." The omission affects greatly the meaning of the side of Berkeley's view which was preferred by Russell--"To be is to be perceived." These two statements, taken together, do allow for "unperceived existents," which, in Berkeley's case, were minds. Thus, with respect to some unperceived existents, Berkeley did not believe that "grounds against them were

---

[59] Ibid., p. 199.

[60] Ibid., pp. 213-214.

conclusive." But if the two statements are taken separately, so that one is given additional scope, in the hope that it is adequate, a different totality of existents results. The idea that "whatever is, is perceived" is not "essentially Berkeley's." Russell's interpretation changed the range of existents, and his revision could yield only a totality of objects, where Berkeley equally provided for a totality of subjects. Of course, Russell only suggested his view, but the present concern has been with his tendencies of interpretation, which apparently continued to identify existents with the object-status only.

It would seem that in the course of time, the object-status of the items of immediate experience became more firmly entrenched in Russell's thought. Once the subject is gone, the term "object" loses significance and may be dropped. However, the resultant status, whatever it is called, is characterized by an absence of the subject, leaving a totality of not-subjects. Moreover, it has been shown that a possible reason for the absence of the subject was present at the time both subject and object were accepted. At that time, there was an undue exaggeration of the scope of the object-status. To interpret the later absence of the subject solely in terms of what is "empirically discoverable" is hardly justified. For of what use is it to report, "I find no subject in immediate experience," if objects only can appear in one's adopted standpoint?

It is concluded, therefore, that Russell's change of viewpoint, in which the subject of experience was rejected, was apparently a natural consequence of the earlier difficulties of his approach. For so long as Russell continued to adhere to the adequacy of the object-status, as required by his doctrine of acquaintance, he would be forced to reject any subject which was not completely amenable to the object-status. In view of the fact that Russell rejected the subject, it is evident that he found no subject of the kind that his approach would permit. However, this does not mean that there is no subject of any kind, and because Russell's approach would have excluded, a priori, any subject which could not be an object of its own acquaintance, his rejection has been regarded in this paper as inconclusive.

The Recent Criticism

In completing the discussion of Russell's approach as it relates to the cogito, it remains to consider a recent criticism advanced by Russell, in order to determine whether or not the considerations developed in this chapter continue to apply. Russell evaluated Descartes' first principle in A History of Western Philosophy as follows:

> "I think" is his ultimate premise. Here the word "I" is really illegitimate; he ought to state his ultimate premise in the form "there are thoughts." The word "I" is grammatically convenient, but does not describe a datum. When he goes on to say, "I am a thing which thinks," he is already using

> uncritically the apparatus of categories handed down by scholasticism. He nowhere proves that thoughts need a thinker, nor is there reason to believe this except in a grammatical sense.[61]

To all appearances, this criticism introduced no factors which would serve to alter the applicability of the considerations developed in the course of this chapter. Russell apparently was still using "the apparatus of categories handed down" from his own earlier approach. When he pointed out that the word "I" does not describe a datum, his approach to immediate experience remained essentially unchanged. It has been shown that the status which Russell attributed to data was not adequate to deal with the possibility that there might be an existent subject.

Russell's statement as to whether thoughts need a thinker is indeed interesting. First, there is the question as to whether the problem is conceived correctly. Does the word "thoughts" represent a correct unit of abstraction from immediate experience? Once the abstraction is made, it is, of course, easy to disclaim the need for some factor which has not been included, and which therefore is already consigned to appear as an addition to immediacy. Does, then, the word "thoughts" possibly represent an abstraction from an immediate experience in which an experiencing subject is involved?

---

[61]Bertrand Russell, A History of Western Philosophy (New York, 1945), p. 567.

If one looks only for what is presented in immediate experience, he may conclude that "thoughts" are the correct units. However, it is not necessary to assume that only what is presented is present.

Second, suppose that thoughts do not "need a thinker." Must one show that they do in order to warrant his acceptance of the cogito? The question here is not what thoughts in general may "need," but whether in the consideration of immediate experience it is proper to omit a reference to the role of thoughts as immediately experienced by someone. The omission of such a reference leaves no basis for accepting the statement "there are thoughts" in preference to its negate, "it is false that there are thoughts." Of course, a reference to immediate experience may simply be assumed, but when it is, one is in danger of hiding the cogito unrecognized in his assumptions.

Third, the statement in question suggests that Descartes failed to prove his ultimate premise. It would seem then, that the principle is placed in a rather peculiar predicament. If the principle is not proven, it is made to appear unworthy of acceptance as an ultimate premise. But if it were proven, it would not be accepted as an ultimate premise, since it would have been proved in terms of some more ultimate principle. It would seem that confusion could have arisen from the modes of thought of Russell's view of immediate experience, in which

the "I" could only be an inferential construct. Thus the alternatives would appear to be, is "the thinker" proven to exist or not? But if the "I" is an ultimate presupposition of one's formulation of any ultimate premises, this suggestion that there was a need for proof was out of place. Whether the "I" has such a status or not, the possibility should have been considered adequately. But adequate consideration is precluded by the very suggestion of a need for proof in this case, since the suggestion excludes, a priori, the possibility that "I think" is an ultimate premise. Also, it seems significant that the demand is a natural expression of Russell's view of immediate experience in which the "I" could only be a derivative construct.

It may be noted in one example of Russell's pattern of formulation, that the formulation leads to considerable communicative difficulty:

> Our next problem is: when we notice an occurrence, how can we formulate a sentence which (in a different sense) we "know" to be true in virtue of the occurrence?
>
> If I notice (say) that I am hot, what is the relation of the occurrence that I notice to the words "I am hot"? We may leave out "I", which raises irrelevant problems, and suppose that I merely say "there is hotness." (I say "hotness," not "heat," because I want a word for what can be felt, not for the physical concept.) But as this phrase is awkward, I shall go on saying "I am hot," with the above proviso as to what is meant.[62]

---

[62]Bertrand Russell, An Inquiry into Meaning and Truth (New York, 1940), pp. 61-62.

If such a phrase is "awkward," part of the reason may be that it is inexpressive of the occurrence in question. One needs constantly to augment the formulations "there is hotness," or "there are thoughts," with implicit additions, in order to relate them to the occurrences they are designed to describe. Without implicit additions, such a phrase does not even make a good "proviso as to what is meant." We might better simply "go on saying 'I am hot,'" or "I think" until a more adequate formulation comes along.

With respect to the problem of adequate formulation, Russell made an important distinction by continuing to say that the problem he was dealing with was proper expression, and that such a problem arises only <u>after</u> one has assumed a recognition of the experience. In speaking of the experience, Russell did not hesitate to refer to the first-person experience of hotness:

> Let us be clear as to our present problem. We are no longer concerned with the question: "How can I know that I am hot?" This was our previous question, which we answered--however unsatisfactorily--by merely saying that I notice it. Our question is not about knowing that I am hot, but about knowing, when I know this, that the words "I am hot" express what I have noticed, and are true in virtue of what I have noticed.[63]

Thus, one may regard the formulation as a secondary step, which is to be responsibly derived from the situation. Also,

---

[63] <u>Ibid</u>., p. 62.

it would seem that Russell's formulation presupposes the factors in our hypothesis. For Russell's formulation depends upon the previous fact that he knows he is hot. Similarly, in the premise, "There are thoughts," the formulation must depend upon the previous fact that he knows he is thinking. If such is the case, the cogito makes a more satisfactory ultimate principle, since it expresses what is presupposed in formulations such as Russell's.

The fact that Russell was prepared to proceed beyond the question, "How do I know that I am hot?" would seem to indicate his readiness to presuppose, "I do know that I am hot." He remarked that the question may have been answered "unsatisfactorily," but nevertheless proceeded as if it had been answered. In this case, the epistemological presupposition involves a reference to the first-person experience of someone who knows that he is hot. Such a reference is presupposed, and is therefore ultimate for the approach in question. However, the reference is not acknowledged in the type of formulation which Russell would have one adopt.

There is no question as to Russell's realization as to the importance of individual experience. In this respect, the present paper has no criticism of his approach. In the following passages, Russell would appear to have no quarrel with the cogito:

> All theory of knowledge must start from "what do I know?" not from "what does mankind know?" For how can I tell what mankind knows?
>
> . . . . . .
>
> There is a tendency--not confined to Neurath and Hempel, but prevalent in much modern philosophy--to forget the arguments of Descartes and Berkeley. It may be that these arguments can be refuted, though, as regards our present question, I do not believe that they can be. But in any case, they are too weighty to be merely ignored. In the present connection, the point is that my knowledge as to matters of fact must be based upon my perceptive experience, through which alone I can ascertain what is received as public knowledge.[64]

While it might seem in such passages that Russell had little or no quarrel with the cogito, it must be remembered that Russell claimed that he did, and rejected its reference to an experiencing "I." Some of the difficulties in his rejection have occupied the efforts of this chapter. Of paramount importance is the conclusion which has been drawn at several points, that Russell's approach runs the danger of fostering an a priori rejection of the experiencing subject. Throughout this "test" consideration, there has developed no reason to prefer the alternatives offered in the approach of Russell to one which hypothesizes the validity of the cogito.

---

[64] Ibid., pp. 179-180.

CHAPTER IV

A BRIEF ORIENTATION

The purpose of this chapter is to broaden the scope of the considerations thus far by giving attention to four additional thinkers of modern times. The men selected for consideration are Hans Reichenbach, Clarence Irving Lewis, Alfred North Whitehead, and Max Planck. The criticism set forth by Reichenbach is similar to that set forth by Russell, and illustrates the fact that the evaluation of Russell's approach made in Chapter III can be extended and adapted to other approaches which involve similar appraisals of the cogito. The references to Lewis, Whitehead, and Planck are intended mainly to illustrate points of agreement between the thesis here proposed and the positions under consideration. From the comparisons drawn, it should be evident that the thesis does not collide head-on with the temper of modern thought in general, but that there is a range of philosophical viewpoints with which the thesis enjoys a considerable degree of harmony.

Reichenbach's Criticism of the Cogito

In The Rise of Scientific Philosophy, Reichenbach discussed the cogito as follows:

> Later analysis has shown the fallacy in Descartes' argument. The concept of the ego is not of so simple a nature as Descartes believed. We do not see our own selves in the way we see houses and people around us. We may perhaps speak of an observation of our acts of thought, or of doubt; they are not perceived, however, as the products of an ego, but as separate objects, as images accompanied by feelings. To say "I think" goes beyond the immediate experience in that the sentence employs the word "I." The statement, "I think" represents not an observational datum, but the end of long chains of thought which uncover the existence of an ego as distinct from the ego of other persons. Descartes should have said "there is thought," thus indicating the sort of detached occurrence of the contents of thought, their emergence independent of acts of volition or other attitudes involving the ego. But then Descartes' inference could no longer be made. If the existence of the ego is not warranted by immediate awareness, its existence cannot be asserted with higher certainty than that of other objects derived by means of plausible additions to observational data.
>
> It is scarcely necessary to go into a more detailed refutation of Descartes' inference. Even if the inference were tenable, it would not prove very much.[65]

This criticism is based on the viewpoint that the ego is not a datum presented to immediate experience, and that "I think" does not represent an "observational datum." Since the concept of the ego is derived by means of "plausible additions" to observational data, the existence of the ego cannot be asserted with the certainty of matters of immediate experience.

Reichenbach began by saying that the concept of the ego "is not of so simple a nature as Descartes believed." With

---

[65]Hans Reichenbach, The Rise of Scientific Philosophy (Los Angeles, 1951), p. 35.

this the present paper agrees, noting that the validity of the cogito does not hinge on this. The passage continues, "We do not see our own selves in the way we see houses and people around us." Descartes could certainly have agreed with this statement, and never claimed that the self was an object of perception.

While both Descartes and Reichenbach would agree that the self is not the datum of observation, Reichenbach considered this sufficient to invalidate the principle.

> Scientific philosophy has constructed a functional conception of knowledge, which regards knowledge as an instrument of prediction and for which sense observation is the only admissible criterion of non-empty truth.[66]

Notice in the above quotation that sense observation is given a logical status as a criterion. It is obvious that by assigning this criterion, one has determined, a priori, that he cannot accept Descartes' principle as "non-empty truth." The question is, then, is it proper to assign sense observation as "the only admissible criterion of non-empty truth?"

If the criterion was self-existent in a vacuum, its scope might possibly create no difficulty. However, in any given empirical procedure, the criterion must be assigned, suggested, or employed, and therefore cannot be given a scope which contradicts any factors necessarily presupposed in its being assigned. This is not to say that criteria "need" someone to assign them,

---

[66] Ibid., p. 252.

but simply to say that when one's deliberate purpose is to assign and employ some criterion, he stands in a special relation to the criterion, and this relation imposes a limit upon the scope of the criterion. Since no criterion which one assigns can properly contradict the fact that he assigns it, this fact must be presupposed in any procedure in which one employs criteria, and endeavors to remain consistent with the facts.

When the scope of Reichenbach's criterion is considered in relation to the experiential standpoint from which it may be employed, a difficulty is encountered. For while sense observation may be invaluable in distinguishing the truth about the external world, the very fact that it enables us to distinguish truth from error shows that it represents a deliberate restriction within the scope of our experience. However, its very justification in dealing with the external world indicates its impropriety when applied similarly to the self. For while one may reason falsely about the world and imagine all sorts of things about the world which cannot be verified, and generally live in a dream world, his errors are still what he has experienced, and from that standpoint are empirical facts. This unique case poses a problem for the scope of Reichenbach's criterion. If it is restricted enough to be of use in distinguishing the truth about the external world, it is too restricted to cover the scope of the individual's experiences. Or, if it is to cover the scope of

the individual's experiences, it is of no discriminatory value in dealing with an external world. Thus it is not adequate to deal with the case in which the individual's entire range of experience is the fact in question. Acknowledging the participational standpoint of the cogito seems required if this case is to be taken into account properly. Moreover, the cogito does not militate against a consistent use of an observational criterion, because it does not purport to be a sole criterion of non-empty truth.

Much that has been said about Russell's approach is applicable here, especially concerning the object-status of the factors in immediate experience. Reichenbach limits these factors to being objects of observation, in the passages cited. When immediate experience is identified with the object-status, naturally the cogito goes beyond that identification of immediate experience. But there is no reason why this object identification is appropriate, as has been shown before.

When Reichenbach said that the cogito is not an observational datum, he was right, of course--assuming the object-status to be exhaustive. But to say therefore that the cogito "goes beyond the immediate experience" is simply to assume the object-status as a criterion. Certainly a person has a right to assume his criteria, but the interpretation of immediate experience here brings the criterion itself into question, and it is argued

that whoever assumes or questions any criterion involves himself in the principle of subjective reference, with which his other criteria should be consistent.

To say that "the existence of the ego is not warranted by immediate awareness" is again to mean that the ego is not found among the objects of awareness, and to assume the ability of a totality of such objects to exhaust the factors of immediacy. The cogito is based on the fact that we observe, not on what we observe.

Thus, it is concluded that Reichenbach's criticism, as Russell's, does not show "the fallacy in Descartes' argument," but rather assumes an approach which a priori excludes the cogito. In so far as the approach does exclude the cogito, it is excluded by the cogito, if the cogito is maintained.

The Cogito and the Thought of Lewis

With reference to the thought of C. I. Lewis, there are some important instances of concurrence with the present thesis which will be considered. The following passage seems to point to the possibility of necessary presuppositions in the cognitive situation:

> It may be said that mind, as that which supplies the categorial conditions of experience, is something which, in the nature of the case, must be beyond or behind experience and cannot be in it, but that the existence of such a mind is "presupposed" by experience in general. If this vague word

> "presuppose" has any real and pertinent meaning, I should suppose its connotation would be of an hypothesis or assumption which is logically necessary to explain the facts in question. But the difference between an hypothesis which is absolutely required in order to explain a fact, and direct experience of the thing hypostatized, is a wholly imaginary difference.[67]

This vital passage practically spells out the key relationships which have occupied this paper. There was no evidence, however, of any explicit development of the logical significance of this "assumption which is logically necessary to explain the facts in question." Yet the concept has remained with Lewis, perhaps as something so obvious as to be not worth emphasizing. In a later work, he used this type of reasoning in an interesting refutation of a viewpoint in ethics. Lewis' device was to exhibit a contradiction, not from the assertion alone, but from a whole, constituted by a person and his assertion:

> In ethics, it is the Cyrenaic who, in words, repudiates this categorical imperative. He repudiates concern for any future: tomorrow is another day. Of course, he contradicts himself--not formally, but pragmatically. There would be no logical inconsistency in his hortation, "Have no concern for the future," if it should be found engraved by lightning on a rock. But for us to take seriously one who puts it forward, or for anyone to take himself seriously in accepting, would imply exactly such concern as this injunction advises that we repudiate. The content of the injunction

---

[67]Clarence Irving Lewis, Mind and the World Order (New York, 1929), pp. 415-416.

> is incompatible with giving heed to this--or any other--injunction.[68]

In this passage, Lewis utilized the same interplay between logic and the experiential situation which can be elicited from the cogito.

In addition to this instance, there is a comparison between the thesis and his view, which is much more deeply significant. Lewis expressed the idea that cognition is assertive; an idea which is important to the interpretation of knowledge and belief.

> First, it is requisite that knowing be an assertive state of mind; it must intend, point to, or mean something other than what is discoverable in the mental state itself. Further, this believing attitude lays claim to truth; it submits itself to appraisal as correct or incorrect by reference to this something which it intends. Its status as knowledge is, by such intent, not determinable through examining the state of mind itself but only by the relation of it to something else. And again, no believing state is to be classed as knowledge unless it has some ground or reason. It must be distinguished not only from false belief but also from that which is groundless and from the merely fortunate hazard of assertion. Knowledge is belief which not only is true but also is justified in its believing attitude.[69]

In another passage, Lewis discussed logical validity in terms of self-commitment and self-accord; showing a basic inter-relating of logical and pragmatic criteria.

---

[68]Clarence Irving Lewis, An Analysis of Knowledge and Valuation (LaSalle, Illinois, 1946), p. 481.

[69]Ibid., p. 9.

> Rationality, in this sense, is not derivative from the logical: rather it is the other way about. The validity of reasoning turns upon, and can be summarized in terms of, consistency. And consistency is, at bottom, nothing more than the adherence throughout to what we have accepted; or to put it in the opposite manner, the non-acceptance now of what we shall later be unwilling to adhere to. We are logically consistent when, throughout our train of thought, or our discourse, we nowhere repudiate that to which we anywhere commit ourselves. Thinking and discoursing are important and peculiarly human ways of acting. Insofar as our actions of this sort are affected with concern for what we may later think or wish to affirm, we attempt to be consistent or rational; and when we achieve this kind of self-accord, then we are logical, and what we think or say, whether true or not, has logical validity.[70]

Lewis did not, then, identify consistency with the range of abstract thought only, but tended to permeate all experience with its significance. This paper is in agreement with such an approach, and proposes the cogito as a principle admirably suited to link together various "compartments" of experience, such as science, politics, religion, and so on.

When the cogito is affirmed, for instance, it implies a certain unity between logic and metaphysics. The complexity of relations between logic and metaphysics is not denied, but a key orientation of these fields is afforded. This orientation is based on the concept of an experiencing person, or self, and the inherent compatibility of all matters which are capable of becoming elements in the experience of that person, or self. This concept, in its general sense, serves to recognize a unity

---

[70] Ibid., p. 480.

common to all phases of human experience. Logic and metaphysics represent special cases in this general unity of the experience of the self. These particular cases, however, are more closely related than some--as, for instance, metaphysics and tennis.

While the cogito permits a distinction between logic and metaphysics, it does not permit an antithesis between the two. The cogito does not lend itself, for instance, to the view that logic is SENSE and metaphysics is NONSENSE, since both issue from a single, decisive affirmation. Thus both sciences must come to terms with a common locus of affirmation. If there is one valid affirmation, common to both fields, it cannot be said that logic and metaphysics are inherently contradictory.

There appear to be at least four significant points of comparison between the views of C. I. Lewis and the present thesis. First, there is the view that the mind cannot be identified solely with its content. Second, there is the tendency to represent the status of the mind in terms of presupposition and hypothesis. Third, there is the recognition of the assertive state of mind, which is a natural accompaniment of the cogito. Fourth, there is the close relating of logical standards to empirical procedures, emphasizing consistency of commitment in a given procedure.

Whitehead's Use of the Cogito

The viewpoint adopted in this paper has drawn heavily from the philosophic thought of Alfred North Whitehead. The purpose of this section is to show more adequately the relation of the thesis to Whitehead's position.

Whitehead's emphasis on the relatedness of elements in experience has powerful implications. Some philosophic viewpoints, particularly since Hume, emphasize the lack of necessary connection between "relations of ideas" and "matters of fact." But Whitehead confronts one with the fact that there is at least one important characteristic common to both areas. Relations of ideas and matters of fact are sufficiently related and compatible to be components in experience. In calling attention to the compatibility of various areas of experience, Whitehead has made a needed emphasis. For in his view, experience is not just analyzed, but also synthesized. To Whitehead, experience was a vital common denominator in showing the general relativity of things.

This feature of Whitehead's philosophy is one which lies at the root of many of his conclusions, which one cannot trace in this paper. However, the following statement illustrates the point that experience is viewed as a basis of relatedness.

> There is a togetherness of the component elements in individual experience. This 'togetherness' has that special peculiar meaning of 'togetherness in

> experience.' It is a togetherness of its own kind, explicable by reference to nothing else.[71]

In this viewpoint, individual experience becomes a powerful unifying factor, drawing together the various sciences, and the sciences as a whole with religion, art, music, and every phase of experience. Whitehead exemplified such a unification in his writing and teaching, bringing together a wide range of interests and learning into a coherent whole. In some ways, Whitehead's use of individual experience seems reminiscent of Descartes' belief that the study of the understanding is the key to science in its entirety. However, Whitehead objected to any arbitrary disconnection between our experience and the external world, thus extending the unification beyond the scope of Cartesian mind to the universe in general.

> All metaphysical theories which admit a disjunction between the component elements of individual experience on the one hand and on the other hand the component elements of the external world, must inevitably run into difficulties over the truth and falsehood of propositions, and over the grounds for judgment. The former difficulty is metaphysical, the latter epistemological.[72]

The completeness with which Whitehead hoped to overcome such a disjunction is indicated in his view that each actual entity is a locus in terms of which the whole universe is unified. Thus, the entity can have knowledge of the world by

---

[71]Whitehead, Process and Reality, p. 288.

[72]Ibid., p. 289.

having knowledge of itself. In this doctrine, there is utilized an ingenious epistemological tool. The nature of this tool can be seen in the following:

> . . . according to this philosophy, the knowable is the complete nature of the knower, at least such phases of it as are antecedent to that operation of knowing.[73]

Whitehead did not, however, create a Kantian phenomenal world, in which the knower can never know the thing in itself. Whitehead did not so much subjectivize the world as objectivize the knowing process. The knower is not just a spectator watching reality, but is a participant in reality. The knowing process is not just something that reports "about" reality, but knowing is something that objectively occurs--that actually "happens" in terms of actual occasions. It is not cut off from the actual world, but is a part of it. Reality is not something "outside" the mind, but the mind and reality never get lost from each other. The view suggests the aptness of Hotspur's phrase, "Thought's the slave of life, . . ." Whitehead stated the matter as follows:

> The philosophy of organism abolishes the detached mind. Mental activity is one of the modes of feeling belonging to all actual entities in some degree, but only amounting to conscious intellectuality in some actual entities.[74]

---

[73] Ibid., p. 92.

[74] Ibid., p. 88.

Thus, bypassing the puzzle as to how the facts in the world can be known by the mind, Whitehead simply concluded that mental activity is itself one of the facts in the world. This is an invaluable clue in the search for valid generalizations, for one's conscious experience must exhibit characteristics basic to the universe in general. Not only will the elements of experience exhibit a kindred nature by being experience, but also by being actual. Whitehead ingeniously used experience as a locus for the analysis of actuality. The locus, as actual, serves as a lever for generalizing his analysis to apply to everything else that is actual.

> To be actual must mean that all actual things are alike objects, enjoying objective immortality in fashioning creative actions; and that all actual things are subjects, each prehending the universe from which it arises.[75]

In this significant statement, there is exhibited both the analysis of experience into its basic character as a subjective-objective composite, and the generalization of this analysis to "all actual things." The idea that things must be alike, in certain respects, in order to be actual, is an idea which is easily overlooked. Whitehead has called attention to an important matter almost too obvious to see; that to be actual, something must satisfy those conditions which are requisite to the constitution of all actual occasions alike, and which

---

[75] Ibid., p. 89.

are exhibited in any one actual occasion. Thus he could analyze actuality where he found it best exhibited--in his own experience, and could utilize individual experience to discern and describe the nature of the world in general.

> This doctrine of organism is the attempt to describe the world as a process of generation of individual actual entities, each with its own absolute self-attainment. This concrete finality of the individual is nothing else than a decision referent beyond itself.[76]

It is evident from this passage that even though submerged in reality, the individual does not lose identity as an individual. And with the maintenance of the concept of the individual, there is also the maintenance of an integral factor in the determination of the individual--namely, the factor of decision. Apart from the finality introduced by this factor, there is no individual.

The following passage well illustrates Whitehead's unyielding stand on the particularity of experience, both as content and as activity.

> The point to be emphasized is the insistent particularity of things experienced and of the act of experiencing. Bradley's doctrine--Wolf-eating-Lamb as a universal qualifying the absolute--is a travesty of the evidence. That wolf eat that lamb at that spot at that time: the wolf knew it; the lamb knew it; and the carrion birds knew it. Explicitly in the verbal sentence, or implicitly in the understanding of the subject entertaining it, every expression of a proposition includes

---

[76] Ibid., p. 94.

> demonstrative elements. In fact each word, and each symbolic phrase, is such an element, exciting the conscious prehension of some entity belonging to one of the categories of existence.[77]

Notice that "the act of experiencing" is an important element in the passage, in addition to "things experienced." "The act of experiencing" must certainly be included in the meaning of "immediate experience," as discussed in the following passage:

> The elucidation of immediate experience is the sole justification for any thought; and the starting point for thought is the analytic observation of components of this experience.[78]

When one considers an injunction such as this, it would seem that both Descartes and Whitehead insist on a very similar "starting point." Of course, Whitehead regarded the starting point as flexible, while Descartes regarded it as absolute. However, there remains significant comparison between Whitehead's approach and the first principle of Descartes.

Perhaps the most important comparison between Whitehead's approach and the thesis here advanced is in the relation of ultimate factors to given procedures of inquiry. Whitehead considered schemes of ideas vitally important but transitory, and pointed to the fact that their function is to serve a more constant factor--method.

---

[77] Ibid., p. 69.

[78] Ibid., p. 6.

> Secondly, that the true method of philosophical construction is to frame a scheme of ideas, the best that one can, and unflinchingly to explore the interpretation of experience in terms of that scheme. Thirdly, that all constructive thought, on the various special topics of scientific interest, is dominated by some such scheme, unacknowledged, but no less influential in guiding the imagination. The importance of philosophy lies in its sustained effort to make such schemes explicit, and thereby capable of criticism and improvement.[79]

This passage suggests that one should intelligently use a feature of philosophic construction which, if ignored, will nevertheless dominate his thought. This procedural feature is the involvement, implicitly or explicitly, with some scheme of ideas. Such schemes of ideas, incurred in a given procedure, are comparable to sets of criteria. For the ideas of "the scheme" serve to dominate the interpretation of experience, whether the scheme be implicit or explicit. If such criteria are left to operate unrecognized, however, inquiry has a dangerous blind side, and one may have explicitly rejected factors upon which he has implicitly relied. Consequently, "the true method" which Whitehead described is one with which the present thesis seems to have a great deal of accord. For both the thesis and Whitehead's method aim at making explicit certain factors, which are presupposed in a given methodological procedure, and which are therefore ultimate for that procedure. Whitehead's emphasis, however, was on the interpretation of

---

[79] Ibid., p. x.

experience in general, in which case the changeability of schemes is a dominant note. The emphasis of this paper is on more constant methodological presuppositions, such as the fact that whatever scheme one may develop, he develops it.

The idea of treating the experiencing subject as a constant methodological presupposition, accompanying any scheme developed within the procedure, can receive only indirect support by reference to Whitehead. It has, however, been noted that Whitehead did regard philosophic procedure as involving implicit schemes of ideas. Also, in his particular scheme, the experiencing subject is basic. Furthermore, there is evidence that he regarded this Cartesian element as so basic as to have a continuing influence on the construction of philosophic schemes. Note the following passage:

> Descartes modified traditional philosophy in two opposite ways. He increased the metaphysical emphasis on the substance-quality forms of thought. The actual things 'required nothing but themselves in order to exist,' and were to be thought of in terms of their qualities, some of them essential attributes, and others accidental modes. He also laid down the principle, that those substances which are the subjects enjoying conscious experiences, provide the primary data for philosophy, namely, themselves as in the enjoyment of such experience. This is the famous subjectivist bias which has entered into modern philosophy through Descartes. In this doctrine Descartes undoubtedly made the greatest philosophical discovery since the age of Plato and Aristotle. For his doctrine directly traversed the notion that the proposition, 'This stone is grey,' expresses a primary form of known fact from which metaphysics can start its generalizations. If we are to go back to the subjective enjoyment of experience, the type of primary

> starting point is 'my perception of this stone as grey.'[80]

Of course, Whitehead did not adopt both of the "two opposite ways" that Descartes modified philosophy, but rather extricated one from the other. Whitehead considered that the subjective enjoyment of experience was by no means a factor confined to the substance-quality categories.

> But like Columbus who never visited America, Descartes missed the full sweep of his own discovery, and he and his successors, Locke and Hume, continued to construe the functionings of the subjective enjoyment of experience according to the substance-quality categories. Yet if the enjoyment of experience was to be the constitutive subjective fact, these categories have lost all claim to any fundamental character in metaphysics.[81]

Thus Whitehead utilized the Cartesian "primary starting point," without thereby accepting the categories in which it was born. In one place, Whitehead used the cogito to illustrate the climax of the process constituting an actual entity:

> The individual process is now feeling its own completion:--Cogito, ergo sum. And in Descartes' phraseology, 'cogitatio' is more than mere intellectual understanding.[82]

In the light of these considerations, it is contended that, although Whitehead's position does not exhibit a direct approbation of the particular use of the cogito proposed in this

---

[80] Ibid., p. 241.

[81] Ibid., p. 241.

[82] Whitehead, Science and the Modern World, p. 270.

paper, nevertheless it exhibits strong indications that such a use is justified. The extent to which the thesis has leaned upon Whiteheadian doctrines has been evident in the course of the paper.

Planck's Recognition of the Personal Element in Science

The final viewpoint to be considered is that of Max Planck, which provides a more direct orientation of the present thesis to the problems of validity in the physical sciences.

Planck's approach is germane to this thesis, for he treated the problem of developing any science. He thus focused attention on factors inherent in the procedure requisite to the formation of any science. In discussing the basic characteristics of scientific procedure, he arrived at conclusions very similar to those proposed by this thesis. He wrote as follows:

> I propose to begin with a general consideration. Any scientific treatment of a given material demands the introduction of a certain order into the material dealt with: the introduction of order and of comparison is essential if the available and steadily increasing matter is to be grasped; and the obtaining of such a grasp is essential if the problems are to be formulated and pursued. Order, however, demands classification; and to this extent any given science is faced by the problem of classifying the available material according to some principle. The question then arises, what is to be this principle? Its discovery is not only the first but, as ample experience proves, frequently the decisive step in the development of any given science.
>
> It is important at this point to state that there is no one definite principle available a priori

> and enabling a classification suitable for every purpose to be made. This applies equally to every science. Hence it is impossible in this connection to assert that any science possesses a structure evolving from its own nature inevitably and apart from any arbitrary presupposition.[83]

In discussing the problem of developing science in general, Planck pointed to several factors which involve the functioning of the scientist in the development of science. Those factors mentioned are the introduction of order and comparison, the grasping of material, the formulation and pursuing of problems, the classification of material according to some principle, the discovery of such a principle, the relativity of the principle to some particular purpose, and the inescapable presence of some arbitrary presupposition. Such considerations tend to show that the scientist inevitably interferes in the development of his science and its criteria.

A point of difference, however, arises between Planck's view and that of the present discussion. For Planck, in accepting the arbitrary element in science, regards it nevertheless as a defect.

> Thus every science contains an element of caprice and hence of transitoriness in its very structure, a defect which cannot be eradicated because it is rooted in the very nature of the case.[84]

---

[83]Max Planck, The Philosophy of Physics, translated by W. H. Johnston (London, 1936), pp. 12-13.

[84]Ibid., p. 15.

It is agreed that Planck pointed to an element "rooted in the very nature of the case," but the agreement ends where he called the element "caprice," and "a defect." The term "caprice" is apt to suggest irresponsibility. Actually, the arbitrary element in question makes irresponsibility possible only by the same token that it makes responsibility possible. In this sense, the arbitrary element in science does not authorize caprice.

Another passage from Planck may serve to further illustrate that his conclusions bring him very close to the conclusions of the present consideration of Descartes' first principle.

> We saw above that in dealing with the structure of any science, and in discussing its most suitable arrangement, a reciprocal inter-connection between epistemological judgments and judgments of value was found to arise, and that no science can be wholly disentangled from the personality of the scientist.[85]

This passage may erroneously be taken to mean simply that the scientist is always necessary to write down "the facts." However, a deeper relation than that is implied. The scientist is not just an ever-present accessory to science, but is a factor contributing in principle to the determination of a science. Planck brought this out in the following passage:

> We must go back to the source of every science, and we do this when we remember that every

---

[85] Ibid., p. 33.

> science requires some person to build it up and to communicate it to others. And this means once again the introduction of the principle of totality.
>
> In principle a physical event is inseparable from the measuring instrument or the organ of sense that perceives it; and similarly a science cannot be separated in principle from the investigators who pursue it.[86]

This viewpoint lends itself to the contention set forth in this paper that the factors regarded as ultimate for any methodological procedure are incomplete unless they include a proper reference to the persons by which and for which the procedure is developed.

In Planck's view, the reference to the investigator has deep implications as to the relation between scientific procedure and faith:

> Anyone who has taken part in the building up of a branch of science is well aware from personal experience that every endeavor in this direction is guided by an unpretentious but essential principle. This principle is faith--a faith which looks ahead.[87]

This passage indicates that there is an element underlying scientific procedure which is sometimes regarded as an enemy of science. When faith is identified with superstition, science appears as an alternative to faith--an alternative which seems to replace "faith" with "proof." Certainly a correction of this misconception is fundamental to an understanding of the nature

---

[86] Ibid., p. 104.

[87] Ibid., p. 112.

of scientific procedure and of faith. Neither is incompatible with the other. Moreover, if Planck was right, the two are vitally related.

The dependence of science on faith, and on a person who is actuated by faith, was discussed by Planck as follows:

> It is said that science has no preconceived ideas: there is no saying that has been more thoroughly or more disastrously misunderstood. It is true that every branch of science must have an empirical foundation: but it is equally true that the essence of science does not consist in this raw material but in the manner in which it is used. The material always is incomplete: it consists of a number of parts which however numerous are discrete, and this is equally true of the tabulated figures of the natural sciences, and of the various documents of the intellectual sciences.
>
> The material must therefore be completed, and this must be done by filling the gaps; and this in turn is done by means of associations of ideas. And associations of ideas are not the work of the understanding but the offspring of the investigator's imagination--an activity which may be described as faith, or, more cautiously, as a working hypothesis. The essential point is that its content in one way or another goes beyond the data of experience. The chaos of individual masses cannot be wrought into a cosmos without some harmonizing force, and, similarly, the disjointed data of experience can never furnish a veritable science without the intelligent interference of a spirit actuated by faith.[88]

It is not necessary to agree in every detail with this statement to realize that Planck has set forth an important characteristic of scientific procedure. Just how this characteristic should be recognized is a difficult question. But

---

[88] Ibid., pp. 112-113.

the fact that it should be recognized has been maintained in this paper.

The historic principle which seems most suited to recognize the role of the participant personality is the first principle of Descartes.

CHAPTER V

A CONCLUSION

The effort has been made throughout this paper to maintain a distinction between the cogito as a first principle and derivative considerations which are sometimes falsely identified with it. This distinction is important in evaluating rejections of the principle, and has consequently determined the emphasis of much of this paper. However, it is difficult to maintain the distinction because of the inevitable tendency to assign to the "I" of the cogito one's own view of its nature. The particular bias of the author, for instance, has probably become noticeable in the course of the paper. The difficulty in maintaining the distinction, then, warrants some consideration.

The present thesis does not deny the necessity, or at least, the propensity, to think of the "I" in terms of some estimate of its nature. The point is rather that in making some estimate, one should honor the presupposition that the "I," which is in this case himself, exists. This presupposition can be honored, not necessarily by withholding all concepts of one's nature, but by recognizing that the presupposition of one's existence can attend many changing concepts of his nature.

And although, at the moment, one concept of his nature may seem quite convincing, one can recognize that it is a derivative estimate, subject to replacement by a better estimate.

While the presupposition of one's existence may seem innocuous enough, it does define a limit, and thus constitutes one among other ultimate factors for an adopted procedure. While it is not probable, it is possible that someone would try to use an estimate of his nature to deny his existence. For instance, one might endeavor to interpret human nature by saying that persons are "nothing but" classes. If he reasoned that classes have no existence, then he might say that persons, being classes, have no existence. Such an estimate of human nature would be excluded by honoring the presupposition that if anyone ever makes such an estimate, he exists.

The thesis does not propose that the presupposition of one's existence should be uncritically accepted. The principle of subjective reference suggests a consideration of standpoints, which may be developed and evaluated in relation to any case in question. In the case of the possible view that persons are classes--as long as classes and persons are treated objectively from an analytic observer's standpoint, the view might seem adequate. From this standpoint, it remains consistent to say, perhaps, that classes, including those which are persons, have no existence. But when the participational standpoint is taken into account, the classes which are persons

can no longer be viewed as objects of analysis only, since at least one of these classes participates in the conduct of the analysis. Thus, from this standpoint, it is maintained that any "classes" which analyze, observe, or think, have existence.

The cogito not only imposes a limit upon estimates of one's nature through forbidding the denial of one's existence, but also through forbidding any estimate of one's nature which contradicts the nature of his participation in experience. That is to say, what lies within the range of one's participation in experience helps to indicate what his nature is. In everyday expressions, "Johnny is as Johnny does." Or, "His actions give him away." Or, "He's just expressing himself." Whether one lives in a dream world, or is a red-blooded American, his range of experience is relevant to the estimate of his nature.

The cogito need not be used merely to negate, but may also be used to suggest lines of inquiry in derivative considerations such as the nature of the self. The cogito does not automatically present one with a complete doctrine of the self, but requires that the standpoint of the participant be taken into account along with any other considerations.

The inclusion of this standpoint calls attention to some questions which might otherwise not be adequately considered. For instance, what is the temporal range of one's attention? Does it indicate that the self is momentary, or of longer duration? Is one's temporal range of existence sufficient to permit

his communication with another being? Or, by the time the supposed communication takes place, has the self which intended to communicate ceased its momentary existence, and been replaced by a succession of different selves? Does one remain himself long enough to get an answer from another person with whom he has tried to communicate? Does one exist long enough to make a single assertion? Such questions ought to be faced from the standpoint of a participant as well as from the standpoint of an analytic observer. The omission of either standpoint serves to oversimplify the appraisal of the situation.

In relation to the field of logic, the cogito suggests certain questions concerning the theory of types. When Descartes reasoned that one cannot doubt that he doubts, he prohibited a reflexive application of doubt. The prohibited reflexive, however, involves a negative element in the sense that what could be doubted could not be accepted as true. There appears to be nothing in the cogito, on the other hand, which would forbid a reflexive which contains no negative element, such as, "This is a sentence." In the theory of types, the reflexive itself is prohibited, whether a given reflexive appears to be self-confirming or self-contradicting.

The cogito suggests the possibility that the reflexive relation itself is not the difficulty in vicious-circle fallacies, but instead that the reflexive relation must include some

negating power in order to lead to any contradiction. For example, when a Cretan makes the assertion, "All assertions made by Cretans are false," one may ask if this assertion made by a Cretan is false. But is the reflexive itself the cause of the difficulty? It would appear that if a similar reflexive is developed in which there is no negative element, the resultant assertion is perfectly consistent. In such a case, a Cretan could say, "All assertions made by Cretans are true." Are both these reflexives meaningless, or is one valid and the other invalid?

To cite one consistent reflexive is of little consequence, but if it happens to be the case that no reflexive which contains no negative element leads to a contradiction, then it would appear that the reflexive relation itself is not the difficulty. In this case, to avoid contradiction by prohibiting the reflexive would be like avoiding the abuse of a tool by prohibiting its use.

Thus, by properly distinguishing the limits of the cogito, one does not cut himself off from derivative considerations. Instead, the principle suggests such considerations. However, one is in a better position to evaluate derivative considerations once he has endeavored to delimit the bounds of the cogito itself. The purpose of this paper has been fulfilled if it has contributed to that end.

LIST OF REFERENCES

Descartes, René, Descartes Selections, edited by Ralph M. Eaton, The Modern Student's Library, Philosophy Series, New York: Charles Scribner's Sons, 1927.

_____, The Method, Meditations and Philosophy of Descartes, translated from the Original Texts with a New Introductory Essay, Historical and Critical by John Veitch, New York: Tudor Publishing Company, [n. d.].

Dewey, John, The Theory of Inquiry, New York: Henry Holt, 1949.

Hume, David, A Treatise of Human Nature, 2 vols., Everyman's Library, New York: E. P. Dutton, 1949.

Keeling, S. V., "Descartes," Proceedings of the British Academy, Vol. XXXIV, London, 1948. Reprinted at the Oxford University Press, 1948.

Lewis, Clarence Irving, An Analysis of Knowledge and Valuation, LaSalle, Illinois: Open Court Publishing Company, 1946.

_____, Mind and the World Order, New York: Charles Scribner's Sons, 1929.

Mahaffey, J. P., Descartes, London: Wm. Blackwood and Sons, 1880.

Planck, Max, The Philosophy of Physics, translated by W. H. Johnston, London: George Allen and Unwin, Ltd., 1936.

Reichenbach, Hans, The Rise of Scientific Philosophy, Los Angeles: University of California Press, 1951.

Russell, Bertrand, The Analysis of Matter, New York: Harcourt, Brace and Company, 1927.

_____, The Analysis of Mind, edited by J. H. Muirhead, Library of Philosophy Series, New York: MacMillan, 1924.

_____, A History of Western Philosophy, New York: Simon and Schuster, 1945.

_____, An Inquiry into Meaning and Truth, New York: W. W. Norton and Company, 1940.

_____, Mysticism and Logic and Other Essays, London: Longmans, Green, and Company, 1921.

_____, The Problems of Philosophy, The Home University Library of Modern Knowledge, London: Oxford University Press, 1950.

_____, Our Knowledge of the External World, Chicago: Open Court Publishing Company, 1915.

Werkmeister, W. H., A Philosophy of Science, New York: Harper and Brothers, 1940.

Whitehead, Alfred North, Process and Reality, New York: MacMillan, 1941.

_____, Science and the Modern World, New York: MacMillan, 1950.