

RUSSELL'S ANALYSIS OF MIND

RUSSELL'S ANALYSIS OF MIND

By

IBRAHIM NAJJAR, B.A.

A Thesis

Submitted to the School of Graduate Studies

in Partial Fulfilment of the Requirements

for the Degree

Master of Arts

McMaster University

(November) 1972

To Heather

MASTER OF ARTS
(Philosophy)

McMASTER UNIVERSITY
Hamilton, Ontario

TITLE: Russell's Analysis Of Mind

AUTHOR: Ibrahim Najjar, B.A. (American University of Beirut)

SUPERVISOR: Dr. M. Radner

NUMBER OF PAGES: iv, 128

ACKNOWLEDGEMENTS

I would like to extend my thanks to Dr. Radner for drawing my attention to Russell's theory of mind and for his constant help throughout the thesis. To Dr. Dulmage whose thoughtful discussions I enjoyed very much, and to Dr. Najm, my third reader, whose advice on different issues, gave me great confidence and courage. To Dr. Kubursi for his enthusiasm and support in seeing to the manuscript being typed. To Miss O'Grady for her careful reading of the manuscript, and, finally to Mrs. Lamb for her efficiency in typing the thesis.

TABLE OF CONTENTS

	Page
Acknowledgements	iii
Table of Contents	iv
INTRODUCTION	1
I	
INTELLECTUAL MOVEMENTS AND SOME NOTIONS OF RUSSELL'S PHILOSOPHY	
CHAPTER ONE Russell's Criticism of Behaviorism	5
CHAPTER TWO James' Theory of Mind	21
II	
DEVELOPMENT OF RUSSELL'S MINOR THESIS	
CHAPTER THREE Sensations	45
CHAPTER FOUR Images	64
CHAPTER FIVE Russell's Minor Thesis (Perception)	72
CHAPTER SIX Russell's Minor Thesis (The Analysis of Memory)	81
CHAPTER SEVEN Russell's Minor Thesis (The Analysis of Belief)	95
III	
DEVELOPMENT OF RUSSELL'S MAJOR THESIS	
CHAPTER EIGHT Russell's Major Thesis	107
BIBLIOGRAPHY	128

INTRODUCTION

It would seem to be very essential for an understanding of Russell's theory of mind that we trace back some of the intellectual movements which either motivated the publication of this theory or influenced its course of development. But since there are so many intellectual sources such as behaviourism, neo-realism, William James, Brentano, Meinong, Einstein and several others, I will confine my attention only to behaviorism and James. For both of them have played the major role (a) in the formation of Russell's theories of mind and matter and (b) in my formulation of what I consider (i) Russell's minor thesis and (ii) Russell's major thesis.

Consequently, my thesis will devote more attention to and will be concerned mainly with (bi) i.e. Russell's minor thesis. However, some attention will be given in order to explain (α) Russell's major thesis i.e. (bii) and (g) the relationship between bi and bii. The reason why I am not devoting an equal time and effort to bii is methodological rather than prejudice or short-sightedness. It is rather difficult to treat of these two theses bi and bii, in one thesis and hope to do justice to both of them.

I would like to state Russell's minor thesis in this way: All mental phenomena can be constructed out of sensations and images and their relationships. Also, I would like to state Russell's major thesis in this way: All mental phenomena as well as physical phenomena (referred to in short as mind and matter) can be constructed out of one and the same stuff

which is neither mental nor material but more primitive than both of them. This major thesis might be referred to as "neutral monism".

The reason why I consider Russell's theory of neutral monism as his major thesis is that it includes two parts in it: the theory of mind and the theory of matter as much as it includes the explanation of the relationship of these two parts to the primary stuff of the world. Therefore, the discussion of either of these parts is minor to the discussion of both of them and their origin. However, since I am interested mainly, in my thesis, in Russell's theory of mind, I feel that I should devote to it most of my time. Hence, I consider it my major thesis.

Nevertheless, since Russell's theory of mind forms an essential part of the theory of neutral monism, I feel that it is necessary to treat also Russell's theory of matter. But since this last part of the theory of neutral monism is not the main theme in my thesis, I devote to it less attention than what should have been required, had it been the major theme of the thesis. Hence, I consider it the minor thesis.

Eventually, I will follow this procedure in my thesis:

I

Under the title of intellectual movements I will present some of the important features of behaviorism and James with some points of Russell's evaluation of them.

II

I will try to develop Russell's minor thesis. Consequently, I will deal with:

1. (i) Sensations, and
(ii) Images

2. I will attempt to give some examples of some mental phenomena whereby it can be shown that in every case Russell's minor thesis holds. These cases are:
 - (i) perception
 - (ii) memory
 - (iii) belief
3. I will devote some sections to the relationship between sensations and images.

III

I will try to explain tentatively Russell's theory of neutral monism.

However, there are some assumptions that would be very essential to keep in mind while dealing with Russell's two theses. The first assumption is Russell's belief in the Darwinian theory of evolution, and the second is his belief in the "hypothesis of continuity"¹ in evolution. The third assumption is that Russell was interested "in psychology, not so much for its own sake, as for the light that it may throw on the problem of knowledge".²

Hopefully, the first two assumptions will receive special elucidation within the chapter which I will devote to James. It will remain necessary, however, to show that Russell did accept these two assumptions from James by citing some quotations from The Analysis of Mind. Although the third assumption might be alluded to in our discussion of behaviorism,

¹Bertrand Russell. The Analysis of Mind. George Allen & Unwin Ltd., London 1961, p. 41.

²Ibid., p. 15.

it will be postponed until the end, the last chapter.

I

INTELLECTUAL MOVEMENTS AND SOME NOTIONS OF RUSSELL'S PHILOSOPHY

CHAPTER ONE

RUSSELL'S CRITICISM OF BEHAVIORISM

According to Russell, behaviorism is a great school in psychology which has "a permanent value"¹ despite the fact that it is "incomplete in a vital point".² What is of a permanent value in behaviourism or where it goes astray will become clearer as we go on. For the time being we can state the matter very generally.

In the preface of The Analysis of Mind, Russell claims that the behaviourists "tend to adopt what is essentially a materialistic position, as a matter of method if not of metaphysics. They make psychology increasingly dependent on physiology and external observation, and tend to think of matter as something much more solid and indubitable than mind".³ Furthermore, the behaviorists feel that "physics is the most fundamental science at present in existence".⁴ Accordingly, Russell feels that when the behaviorists commend physics as the most fundamental science, they deserve all the merits, but when they take a materialistic position which is inconsistent with the discoveries of modern physics, they should be criticized. Russell believes that the behaviorists are inconsistent and therefore their outlook is deficient in a very vital

¹B. Russell. The Analysis of Mind. Preface.

²B. Russell. Logic and Knowledge. Ed. R.C. Marsh, George Allen & Unwin Ltd., London 1956, p. 291.

³B. Russell. The Analysis of Mind. Preface.

⁴Ibid.

point. On the one hand they commend physics and on the other hand, they discard its discoveries. "Modern physicists," says Russell, "especially Einstein and other exponents of the theory of relativity, have been making 'matter' less and less material".⁵

Aside from these generalities, it is easier to see how Russell criticizes behaviorism on specific points. In a paragraph in The Analysis of Mind, Russell sums up some of the most important points in behaviorism. Russell says that

"the view of the 'behaviorist' is that nothing can be known except by external observation. They deny altogether that there is a separate source of knowledge called 'introspection', by which we can know things about ourselves which we could never observe in others. They do not by any means deny that all sorts of things may go on in our minds: they only say that such things, if they occur, are not susceptible of scientific observation, and do not therefore concern psychology as science.. Psychology as science, they say, is only concerned with behavior i.e. with what we do; this alone, they contend, can be accurately observed."⁶

Watson explains behaviorism in similar terms and claims further that psychology is "a natural science"⁷ very akin to physiology. The only difference is that psychology is "intensely interested in what the whole animal will do from morning to night and from night to morning"⁸ while physiology is "interested only with the functioning of parts of the animal".⁹ The reason why the behaviorist is interested in the behavior

⁵ Ibid.

⁶ Ibid. p. 26.

⁷ John Watson. Behaviorism. New York. W.W. Warton & Company, (1925), p. 6.

⁸ Ibid. p. 11.

⁹ Ibid.

of the organism is that "he wants to control man's reactions as physical scientists want to control and manipulate other natural phenomena. It is the business of behavioristic psychology to be able to predict and to control human activity".¹⁰

The way Russell characterizes behaviorism complements the way in which Watson characterizes it. Russell discusses the behaviorist theory of Knowledge*, while Watson discusses the behaviorist understanding of the nature of psychology as a science. The relationship between the behaviorist's epistemology and his view of psychology as a natural science is very obvious. To the behaviorist, Knowledge is basically Knowledge of behavior, and since behavior is something very public which cannot only be observed but also controlled and reproduced at will, it follows that all Knowledge should be public.** In this light, we can understand why the behaviorist distrusts introspection as a reliable method of Knowledge. Introspection, simply, cannot be made public. Furthermore, the behaviorist denies that there is something that could be known introspectively and not publicly, and what can be known publicly is behavior, and this is the domain of psychology as a science. However, Russell believes that behaviorism is deficient first in its view of psychology as a natural science and second in its theory of Knowledge. Russell believes that psychology is not distinguished from physiology or physics

¹⁰ Ibid. p. 11.

* The behaviorist theory of Knowledge is basically the theory of learning or conditioning as will be shown later on.

** Public means, in this context, not only testable but also non-mystical or non-mysterious as introspection is to behaviorism.

in its subject matter. The subject matters of psychology and physics are made up out of the same original stuff. Nevertheless, psychology is interested in looking at that same stuff in one way and physics is interested in viewing that same original stuff in another way. The laws according to which psychology orders its data are different from the laws according to which physics orders its data. The difference between psychology and physics is a difference in causal laws and it, by no means, entails a difference in the original data (or stuff). The difference between causal laws stems from the fact that once the common data are considered from the point of view of psychology a new set of data is produced and is dealt with only in psychology. However, it does not follow from this point that psychology is intrinsically different from physics or the new data of psychology are intrinsically different from the original data common to both psychology and physics. We cannot deal with this point now; I suggest that we postpone it to a later stage. For the time being, it is sufficient to say that Russell disagrees with the behaviorist view of psychology as a natural science reducible to the laws of physics and believes that the behaviorist view of a natural science contradicts modern physics.

Now, if the behaviorist bases his theory of Knowledge on his view of psychology as a science and if his view of psychology as a science is deficient as Russell claims, then the behaviorist theory of Knowledge itself is also deficient. The backbone of the behaviorist theory of Knowledge is the fact of its publicity. Private data should be denied any claim to Knowledge since they cannot be controlled or manipulated.

According to Watson, the human being is an organism with certain

inherent tendencies for behavior.¹¹ This organism, under the influence of the environment and its stimuli, responds in certain ways.¹² Some of these responses are unlearned¹³ like smiling, sneezing, and crying,¹⁴ and some other responses are learned such as language.¹⁵ The way in which the adults teach the children their habits is based on conditioning. The adults manipulate the unlearned behavior of the children so as to teach them more habits. The teaching of those habits is basically conditioning the children to associate one object with one word or many objects with one word.¹⁶ This is the mechanism of education. Education is basically the acquisition of new habits or associating words with objects. Thinking is the substitution of words for objects. Watson says that "when I ask my subjects to think aloud they do so, and in terms of words ... If then, you grant that you have the whole story of thinking when he thinks aloud why make a mystery out of it when he thinks to himself?"¹⁷ It is evident that "the whole story of thinking" to Watson is the whole story of Knowledge.

However, Russell objects to the behaviorist theory of Knowledge on two grounds. The first one is that introspection is a source of Knowledge and the mere fact that introspection is private does not rule it

¹¹ Ibid. pp. 74 and 77.

¹² Ibid. p. 7.

¹³ Ibid. p. 90.

¹⁴ Ibid. p. 93.

¹⁵ Ibid. pp. 16; 93-95.

¹⁶ Ibid. p. 181.

¹⁷ Ibid. p. 198.

out as a possibility of Knowledge. The second one is that the behaviorist theory of Knowledge rules out the existence of images, yet it can be shown, as a matter of fact -- according to Russell, that images do exist. Therefore, any theory of Knowledge that denies the existence of images is deficient in a very vital point.

A. Introspection

(i) The introspective data are not the only data which are private. According to Russell "bodily sensations" are private also.

Russell says that

"a toothache, for example, is essentially private ... I shall not insist upon the fact that, in the last analysis, all our sensations are private, and the public world of physics is built on similarities, not on identities. But it is worth while to insist upon the privacy of the sensations which give us Knowledge we have of other bodies. This is important because no one regards as scientifically negligible the Knowledge of our own body which is obtained through these private data." 18

So, if we accept the privacy of these sensations which Watson by no means denies, then there is no reason to object to the privacy of introspection as a source of Knowledge. However, it remains true, from Russell's point of view, that we should object to the claim that the data disclosed in introspection are intrinsically different from the data known publicly. Nevertheless, this last objection constitutes a different issue from the rather radical objection to the existence of introspection and the introspective data i.e., images.

(ii) The privacy of data does not, by itself, make a datum

¹⁸Bertrand Russell. Logic and Knowledge. Ed. R.C. Marsh, George Allen & Unwin Ltd., London 1956, p. 294.

unamenable to scientific treatment".¹⁹ Russell gives the evidence of the privacy of a toothache. "The dentist does not observe your ache, but he can see the cavity which causes it, and could guess that you are suffering even if you did not tell him."²⁰ The sensations of the toothache are not different from "the most private sensations" because they have "correlations with things that others can observe".²¹

The privacy in sensations is not so different from the publicity in sensations. For instance, no two people hear exactly the same sound

"because one is nearer to the source of the sound than the other, one has better hearing than the other, and so on. Thus, publicity in sensations consists, not in having precisely similar sensations, but in having more or less similar sensations according to ascertainable laws." 22

Now if, as Russell has been arguing, private sensations can be correlated with things that others can observe and the publicity of things observed in two cases is not identical but similar, then there is no reason why introspection should be rejected on the basis of being private. Therefore, the argument "against introspection" as Russell believes, "must be rejected".²³

B. The Existence of Images

Russell believes that the behaviorist's objection to introspection is based on his rejection of images. Thus the case of intro-

¹⁹ B. Russell. The Analysis of Mind. p. 119.

²⁰ Ibid.

²¹ Ibid.

²² Ibid. p. 114.

²³ Ibid.

spection is basically related to the case of images. Therefore, the criticism of the behaviorist assault on introspection should be complemented by a further criticism of his rejection of images.

Learning is conditioning, according to the behaviorist. For example, the child acquires his mother tongue by being conditioned by the adults to use their habits of associating words with objects. The adults manipulate a certain set of the child's unlearned responses, such as feeding responses, smiling etc., in order to teach him how to acquire new habits of learned behavior.²⁴ These learned habits are many, and let us confine our attention to language. First, the adults teach the children how to associate words with the objects they refer to. Then, they teach the child the different situations or objects that one word may refer to.²⁵ Further, the child is taught how to substitute words for their objects and how to mix words in abstract sense such as poetry for example.²⁶ This last function might be called thinking. Thinking, according to the behaviorist, is possible through the use of words; when we think, it is said by the behaviorist that we are talking to ourselves.²⁷

Russell agrees with the behaviorist that we do think in words and at a certain level of abstraction, such as the theory of relativity or theory of gravity, we do think only in words because images on this level become too vague. However, it does not follow, from the fact that

²⁴J. Watson. Behaviorism. p. 18.

²⁵Ibid. p. 184.

²⁶Ibid. p. 200.

²⁷Ibid. p. 202.

we use words in thinking, that we think only in words. According to Russell, we do think in images as well as in words. The existence of images could be accounted for in two ways: (i) the existence of a faculty of visualization and (ii) the occurrence of a word in the absence of the object it refers to.

A. The Faculty of Visualization

Russell believes that most people do have a faculty of visualization and this approximately constitutes the necessary and sufficient evidence for saying that there are images. If "Professor Watson" says Russell "does not possess the faculty of visualizing, and is unwilling to believe that others do",²⁸ it does not follow that other people do not possess this faculty or there is no such faculty at all. Ironically, Russell comments on the behaviorist rejection of the faculty of visualizing, by saying that "the habit of abstract pursuits makes learned men much inferior to the average in the power of visualizing, and much more exclusively occupied with words in their 'thinking'".²⁹

Russell explains what he means by a faculty of visualizing in an example. He says that "the chair opposite to you is empty; you shut your eyes and visualize your friend as sitting in it".³⁰ Now, given this example, Russell wonders how the behaviorist can explain it. If the behaviorist denies that such an example is possible, Russell tends to say that this behaviorist does not have a faculty by which he is able to

²⁸B. Russell. Logic and Knowledge. p. 293.

²⁹Ibid.

³⁰Ibid. p. 293.

visualize his friend sitting in an empty chair. On the other hand, if the behaviorist does not deny the existence of the image of the absent friend, then, Russell believes, the behaviorist cannot explain the existence of this image on behavioristic terms.

Evidently, the behaviorist does not accept images and he is not willing to draw a distinction between images and sensations. However, Russell finds it necessary that a distinction between images and sensations be made. Russell says that the visual image "must be radically distinguished from a visual sensation, since it affords no part of the data upon which our knowledge of the physical world outside our own body is built".³¹

That such a distinction between images and sensations is necessary appears also from Russell's criticism of Knight Dunlop. Russell says that "Knight Dunlop, a vigorous opponent of introspection, contends that images are really muscular contractions, and evidently regards our awareness of muscular contractions as not coming under the head of introspection".³² However, Russell objects to Dunlop's explanation of images as muscular contractions on the basis of the multiplicity of images. It might be true that certain images can be explained as muscular contractions, but there are some images such as the visual images which cannot be explained as muscular contractions.

Watson classifies the responses of the organism, such as man, according to the sense organ which characterizes the responses. For

³¹Ibid. p. 293.

³²B. Russell. Logic and Knowledge. p. 295 and The Analysis of Mind. p. 120.

example, the responses pertaining to the eyes, Watson classifies as visual responses, and similarly he classifies other responses pertaining to other organs. Furthermore, Watson distinguishes between two sorts of responses; learned and unlearned. For instance, unlearned visual responses would be like "the turning of the eye of the youngster at birth, towards a source of light,"³³ while a learned visual response would be like "the responses to a printed score of music or a word".³⁴

Russell accepts Watson's claim that there are different senses, sensations, and responses. However, Russell goes a step further and claims that there are different images attached to the different sensations.³⁵ To the visual sensations, visual images should be attached, to the sensations of taste, images of taste, and so on. For example, if you are in a place where the lights suddenly go out, you do not find it difficult to find your way out. In this situation visual images serve the place of visual sensations.

Generally speaking the relationship between sensations and images is not very easy to state or define especially in regard to private sensations and private images. "But visual and auditory images" Russell believes "are in quite a different position, since the physical event to

³³John Watson. Behaviorism. p. 16.

³⁴Ibid.

³⁵The word "attached" is not the best word to use; a better word, say, "association" should be substituted for it. However, the word "association" does not convey Russell's meaning. I prefer to keep the issue vague because the matter is not solved by changing words. The issue to be clarified concerns the relationship between images and sensations which is after all part of a theory.

which they would point if they were sensations is not taking place."³⁶

The basic characteristic of each image is its being "concerned with localization".³⁷ The term localization in the case of images should be understood in terms of examples. Public sensations, such as seeing and hearing, are localized in the external world. For example, if anyone sees lightning or hears an explosion, everyone near him will see the lightning or hear the explosion. On the other hand, private sensations are localized within the body where these private sensations are occurring. For example, "the stomach-ache is localized; it has a position near the surface of the stomach".³⁸ Russell believes that private images can usually be

"localized where the private sensations would be without causing any gross or obvious violation of physical laws. Images of words in the mouth can be located in the mouth. For this reason, there are no prima facie objections to regarding them, as Watson does, as small sensations." 39

However, this explanation of images as small sensations does not apply to public images such as visual images. Russell takes the visual image of a friend who is sitting in an empty chair in front of her uneducated girlfriend. The girl can describe such an occurrence by the use of words or by visualizing it as a picture.⁴⁰ Then Russell asks questions similar to these: where are we to locate the image of the

³⁶B. Russell. Logic and Knowledge. p. 295.

³⁷Ibid. p. 295.

³⁸Ibid.

³⁹Ibid. pp. 295-6.

⁴⁰Ibid. p. 293.

friend who is sitting in the empty chair? Is it in the chair, as the lightning is in the physical world? However, the answer to this question is obviously negative since the "chair as a physical object is empty".⁴¹ Is the image of the friend in the eye, i.e., the sense organ of the body since "the body is visual"⁴²? The answer to this question is also negative, according to Russell, for how can we have an image (which is considered as small sensations by the behaviorist) of an object while the object is not really present? The impossibility of this state of affairs being true is quite similar to the impossibility of seeing the lightning without having the sensations which are associated with seeing the lightning. According to Russell, the image of the friend sitting in the empty chair is different from the sensation which we can get when there is a friend sitting in the chair. We can touch him, talk to him and try to get the chair from under him. But the image of the friend when he is not there cannot elicit these sensations, though it might elicit images corresponding to the sensations of talking to a friend when he is present or of touching him and so on.*

Evidently there is a difference between sensations and images and each one of them pertains to a different set of causal laws. If one mixes the two sorts of causal laws together, he runs into the trouble of misunderstanding the nature of these causal laws. Or if one confuses images with sensations, as the behaviorists do, then he will run the risk

⁴¹Ibid. p. 296.

⁴²Ibid.

* This difference between sensations and images will become clearer when we deal with them in connection with James.

of admitting images -- on the supposition of being sensations, into the physical laws. But evidently images do not obey the physical laws which sensations obey. The fact of the matter, according to Russell, is that: there are two different kinds of laws, physical causal laws and psychological causal laws. Sensations, if considered from the point of view of physics, as a system of causal units i.e., physical objects, obey certain causal laws, called the physical causal laws, such as the law of gravity. While these same sensations, if considered, from the point of view of psychology, as particulars and not as systems of particulars connected causally, give rise to images, and these images obey certain causal laws called the psychological causal laws such as the law of association.

Now, if the difference between the physical causal laws and the psychological causal laws is admitted, then according to Russell "the physical world does not include all that we are aware of"⁴³ as Dunlop contends. There are images and "introspection must be admitted as a source of Knowledge distinct from sensation",⁴⁴

B. The Spontaneous Occurrence of Words in the Absence of their Objects

The other objection, which Russell levels at behaviorism in connection with images, is less important than the previous one. However, Russell states it because it has some important suggestions. Since the behaviorist believes that learning is conditioning, and language conditioning is based on the association of a certain word with a certain object, then whenever we have the object we should have the word associated

⁴³Ibid. p. 296.

⁴⁴Ibid.

with it. For example, we teach a boy to say "box" whenever we present him with the object box. Now in certain cases, the boy would say "box" without there being any object-box in front of him. Russell asks the question: why is such an occurrence possible?

"The believer in images" according to Russell "will say that, in the absence of the box an image of it will occur in the child, and this image will have the same associations as the box has, including the association with the word 'box'. In this way the use of the word is accounted for; but in Watson's account it remains mysterious." 45

Summary

To sum up we can say that Russell considers the behaviourist outlook in psychology as containing some points of considerable value. In particular, Russell feels that the behaviorist view, that physics is the most fundamental science at present, is the most important point in behaviorism.

However, according to recent discoveries in physics, Russell believes that the behaviorist outlook is deficient in two major points. The first one is that the behaviorist considers matter as more real than mind. The second point is the behaviorist theory of Knowledge. The two points are related to each other, and it can be shown that both are erroneous.

Modern physicists tend to make "matter" less and less material. They also characterize physics by the relativity of space-time. On the basis of such a physics, it can be shown that each organism has a different point of view which is primarily private. Thus, privacy is not a negligible

⁴⁵Ibid. p. 297.

part of our Knowledge. On different grounds than physics, Russell was able to show that there are images and that a private way -- called introspection, is very necessary for knowing these images.

Concerning the behaviorist theory of Knowledge, Russell agrees that observation and behavior are important criteria in Knowledge, but he believes that they are not sufficient. I did not deal with this point in this section. I will mention it later on. However, it is sufficient to know that, in this Chapter, Russell prepares the way for the general discussion of the theory of mind. Concerning Knowledge, it was established that privacy and relativity are not deviations in Knowledge, but rather they are essential parts in Knowledge. According to Russell, this is a fact in epistemology which is supported by modern physics. Instead of being dogmatic, we should be tolerant and understanding of the necessity for the other points of view.

CHAPTER TWO

JAMES' THEORY OF MIND

I think that James' theory of mind has had a tremendous influence on Russell's understanding of mind. Therefore, a considerable discussion of James' views on mind would not be out of order.

James' Division of Sciences

William James classifies the sciences in his Principles of Psychology, as well as in the Psychology which is an abridged form of the Principles into two main categories: Philosophy and the Special Sciences. James believes "that at bottom there is but one Science of all things, and that until all is known, no one thing can be completely known. Such a science, if realized, would be called Philosophy"¹ But so long as this science is not realized some beginnings of Knowledge

"can be achieved in different places and kept separate from each other merely for practical convenience until with later growth they may run into one body of Truth. These provisional beginnings of learning we call 'the sciences' in the plural".²

As examples of the sciences, James mentions physics, chemistry, physiology and psychology. These sciences select their problems arbitrarily and ignore all other problems. "Every science", says James, accepts certain data unquestionably, leaving to the other parts of Phil-

¹William James. Psychology. New York, Holt & Co. (1893), p. 1.

²Ibid.

osophy to scrutinize their significance and truth".³ The part of Philosophy where the special sciences hold discussion concerning their data and truth, James calls it metaphysics. In James' own words "metaphysics means only an unusually obstinate attempt to think clearly and consistently".⁴

Psychology, according to James, is like any other special science; and it "deals with things in the same partial and provisional way".⁵ Even more, psychology shares with the rest of the special sciences the assumption that a "world of matter exists altogether independent of the perceiving mind".⁶ However, psychology has additional data peculiarly its own whereby it receives its definition as "the description and explanation of states of consciousness".⁷ The data, which are peculiar to psychology, James classifies as: first "thoughts and feelings" and second "Knowledge by these[or]states of consciousness, of other things".⁸

James' Method

James remarks that 'most' books adopt the so-called "synthetic method".⁹ According to this synthetic method, mental phenomena are

³Ibid. pp. 1-2.

⁴Ibid. p. 461.

⁵Ibid. p. 1.

⁶Ibid. p. 2.

⁷Ibid. p. 2. Russell accepts James' view that psychology has data common with natural sciences and data of its own.

⁸Ibid. p. 2.

⁹Ibid. p. 151.

constructed out of the association or integration of the atomic "simple ideas of sensation".¹⁰ But this method "commits one before-hand to the very questionable theory: that our higher states of consciousness are compounds of units".¹¹ Because of this a priori commitment, James feels that the synthetic method should be replaced by a less questionable method namely, the analytic method. The presuppositions of the analytic method is a non-controversial maxim which advises one to start, whenever it is possible, "with what is directly known".¹² According to James, then, the analytic method brings "with the most concrete facts, those with which [one] has a daily acquaintance in his own life".¹³

James' Belief in Evolution

I think that there is another point besides James' view of the sciences and James' method, that should be discussed before dealing with James' theory of mind. It seems that James has accepted Darwin's theory of evolution in general and has held the theory of continuity.¹⁴

Concerning the theory of evolution, James says that

"the point which, as evolutionists, we are bound to hold fast to is that all the new forms of being that make their appearance are really nothing more than results of the redistribution of the original and unchanging materials. The self-same atoms which chaotically dispersed, made the Nebula, now, jammed and temporarily caught in peculiar

¹⁰ Ibid.

¹¹ Ibid.

¹² Ibid.

¹³ Ibid.

¹⁴ I will come back to the theory of continuity when I am speaking about James' criticisms of some other views on consciousness.

positions, form our brains; and the 'evolution' of brains, if understood, would be simply to account of how atoms came to be so caught and jammed. In this story no new natures, no factors not present at the beginning are introduced at any other stage". 15

James' Criticisms of Theories on Consciousness *

A. The Automaton Theory

The Cartesian dichotomy between mind and body or material substance and mental substance is very well known and we need not develop it beyond what is required. Following his methodical doubts, Descartes was able, at the end of a chain of doubts, to arrive at the conclusion, which he thought to be indubitable, that he could not doubt that he was doubting. The obvious inference that Descartes drew from that conclusion was something similar to this: what does such a doubting must be some thing, a substance, intrinsically different from the body. The essence of such a doubting substance is thought. While the essence of the body is extension. Such a separation between the mental substance and the material substance or body and soul proves to be very confusing not only to Descartes himself but to his successors too. Once Descartes separates the body from the soul, it remains very difficult for his successors to put them together.

Fortunately enough, we do not have to deal with the difficulties involved in Descartes' explanation of the nature of the relationship between the body and the soul since James does not deal with that either.

¹⁵ Ibid. p. 146.

* I prefer to start with James' criticisms because his views become easier to understand.

Instead, James points out what is of importance in Descartes' view and explains how some modern professors such as Huxley and Clifford view the relationship between the body and the soul.

James gives the credit to Descartes for being the first one who was "bold enough to conceive of a completely self-sufficing nervous mechanism which could be able to perform complicated and apparently intelligent acts."¹⁶ But according to James, "Descartes has arbitrarily restricted his theory to animals and considered man to be intrinsically different whose higher acts are the results of the agency of his rational soul."¹⁷

Concerning Descartes' successors, James mentions some views such as epiphenomenalism and parallelism which augment Descartes' views on the relationship between the mental substance and the material substance. According to James, Huxley, as a representative of epiphenomenalism believes that the mental substance has no influence on the material substance and it is "like a steam-whistle, which accompanies the work of the locomotive engine, is without influence on its machinery"¹⁸ As a representative of the parallelist theory, James mentions Professor Clifford who believes that "the two things are on utterly different platforms, the physical facts go along by themselves, and the mental facts go along by themselves. There is a parallelism between them, but there is no interference of one with the other."¹⁹

¹⁶Ibid. p. 130.

¹⁷Ibid.

¹⁸Ibid. p. 131.

¹⁹Ibid.

James criticises this automaton theory on two grounds: one is based on psychology and the other is based on metaphysics.* There is a presupposition under the automaton-theory which is an honest demand for simplicity. For if we consider the chasm between the mental and material substance absolute, then we have "the comfort of all simple and absolute formulas".²⁰ However, such a demand for simplicity, James believes, should not carry us beyond what is intelligible. James says that

"this 'concomitance' in the midst of 'absolute separateness' is an utterly irrational notion. It is to my mind quite inconceivable that consciousness should have nothing to do with a business which it so faithfully attends". 21

According to James consciousness is "primarily a selecting agency".²² Therefore, consciousness, if efficient, influences the body considerably. I think now we should introduce some points of James' view in order to show on what basis James criticizes the automaton-theory. Taking the theory of evolution and the theory of continuity for granted, James, then, believes that if there is consciousness, one has to assume it accompanies every form the original stuff takes. One also has to assume the work of consciousness in every form the stuff takes. If this assumption be practically true, then one can say that consciousness grows as we rise higher in the Kingdom of animals and get to man. The reason for such an assumption is that these forms of life -- man and animal -- are more

* Metaphysics and psychology should be understood in James' terms as explained before.

²⁰ Ibid. p. 134.

²¹ Ibid. p. 136.

²² Ibid. p. 139.

complex than any other form the original stuff assumes.

However, one has to assume the existence of consciousness, in the first place, because without consciousness, the theory of evolution remains only a precarious theory. On the basis of the physiological constitution of the living things, it is not possible to determine the direction which these living beings will follow. However, if the theory of evolution is true, and the theory of evolution claims that there is a direction for evolution namely, survival, then there must be something besides the physiological data that exists and directs these data towards that certain end. This end is created by that something. James calls that "something" consciousness and the end to which it directs the organism is the survival of the organism. "This end," James says, "is said to be its [the consciousness] interest and its alone, interest which it creates, and which, but for it, would have no status in the realm of being whatever."²³

According to James, then, we can say that the existence of consciousness is required by certain defects such as the indeterminacy and "instability"²⁴ of certain physiological data in the living organism. As long as we do not respond to these physiological "defects",²⁵ the theory of evolution remains a hypothesis and the notion of survival too remains a hypothesis. Once we make our response and admit the existence of consciousness as an efficacious and selecting agency, then the notion of

²³ Ibid. p. 140.

²⁴ Ibid. p. 139.

²⁵ Ibid. p. 138.

survival "ceases to be a mere hypothesis, ... It has now become an imperative decree: 'Survival shall occur, and therefore organs must so work".²⁶

Now, if the function of consciousness is to know the way for survival, so to speak, and to lead the body to such a survival, then the automaton-theory which admits the existence of consciousness in the body but denies the direct effects of consciousness on the body, should be rejected as being on the one hand unintelligible and on the other hand unresponsive to the requirements of physiology. However, the admittance of the existence of consciousness in evolution, as James believes, raises many problems of its own. These problems related to consciousness are not all of them solved yet, and James hopes that science might solve them one day. For instance, James is able to define the function of consciousness, but it is true that he is unable to state precisely what is the nature of the relationship between consciousness and the body or the brain, although he claims that states of consciousness correspond to brain states.²⁷

B. The Theory of the Association of Ideas

James believes that the backbone of the theory of the association of simple ideas is the claim that "the mind is constituted by the multiplicity of distinct 'ideas' associated into a unity. There is ... an idea of a and also an idea of b. Therefore ... there is an idea of

²⁶ Ibid. p. 141.

²⁷ I will come to this point later on. It is sufficient to say in this connection that James did not solve completely the Cartesian difficulty of the connection between mind and body as he admits.

a + b or of a and b together".²⁸ The fallacy in such a view, according to James, is the consideration of the unity or the whole as the mere sum of its parts. In fact, James observes, the unity is a new and a separate idea as much as its constituents are separate from each other. For James (a & b) is an idea as much as a and b individually are.

If we apply this view of the unity as a separate idea to feelings, we get the same result. James says suppose you have a bundle of feelings.

"Take a hundred of them, shuffle them and pack them as close together as you can ...; still each remains the same feeling it always was, shut-in in its own skin, windowless, ignorant of what the other feelings are and mean." 29

James' criticism of the associationists' theory, that no two ideas or feelings can be mixed together in one idea which is their summation, is based on his view of consciousness. According to James, consciousness constitutes a stream, very similar to Heraclitus' river. No one idea passes twice in the same state of consciousness. The reason is that no physical object affects the same brain twice. The brain is constantly changing and consciousness is changing too. There is a correspondence between the states of consciousness and the brain states. There is also a similar relationship between the brain versus physical objects and the consciousness versus thoughts. The physical objects exist in a stable world. Physical objects can be said to be the same over a certain period of time. Thoughts also exist in a world independent from the mind or

²⁸ Ibid. p. 200.

²⁹ Ibid. p. 198.

consciousness. There are no thoughts, in consciousness, which do not belong to that momentary state of consciousness. Each state of consciousness is different, so it is invalid to say the thoughts of one state belong also to another. The world, where thoughts exist, is an immutable world very similar to the Platonic world of Ideas.³⁰

C. The Mind-Stuff Theory

"The last and subtlest offshoot"³¹ of the theory of the associated ideas is the mind-stuff theory whose most important exponent is Mr. Herbert Spencer. James believes that Spencer advocates a theory which conceives of consciousness as a compound state of ultimate subconscious units called psychic shocks. Consciousness is considered by Spencer to be very similar to the feeling of a musical sound. The feeling seems to be very simple as much as the musical sound seems simple, i.e., uncompound. But in fact, both the musical sound and the feeling of the musical sound are compound. Spencer says that "the subjective effect produced by a crack or noise that has no appreciable duration is little else than a nervous shock".³² If we consider consciousness similar to a feeling, then consciousness is compounded of similar shocks. The ultimate or smallest unit³³ in consciousness is called a psychic shock.

James objects to the mind-stuff theory on two grounds. The first objection is similar to James' other objections to the theory of

³⁰ Ibid. p. 240.

³¹ William James. The Principles of Psychology. Vol. 1, p. 178.

³² Ibid. p. 152.

³³ Ibid. p. 153.

the associated ideas, namely, consciousness is not an entity where ideas get mixed up or psychic shocks get compounded into a single idea.

Consciousness, according to James, is a stream of consciousness where everything that is, is conscious and momentary. James' second objection is in regard to the integrity of consciousness. James believes that if we damage one part of the nervous system, the whole integrity of consciousness is damaged. However, this partial damage should not affect the function of consciousness if it were composed of sub-conscious psychic shocks as Spencer claims.³⁴

The reason why James insists on the view that consciousness is not a compound of ideas nor analysable into smaller psychic shocks is due to his strong belief in evolution as a fact, not as a mere hypothesis. And in order that evolution be considered as a fact, the existence of consciousness must be admitted and the presence of consciousness at the beginning of the process of evolution must be recognized. Now, if we claim that consciousness is a mental substance as Decartes did, or if we claim that consciousness is composed of ideas or sub-conscious psychic shocks as Spencer did, then, according to James, we cannot explain how consciousness emerged in the process of evolution nor can we point out to a specific time when it became conscious.

James believes that in order to be consistent with the fact of evolution we should admit the presence of consciousness from the beginning of the process of evolution. However, James does not object to saying that consciousness grows more and more complex in structure as the growth of

³⁴Ibid. p. 157.

evolution becomes more and more complex or as we rise higher in the scale of evolution to the Kingdom of animals and man.³⁵

James' Theory of Consciousness

In order to define consciousness within James' framework, we have to take into consideration his theory of a self. According to James every person is a self which is a "duplex" of a knower and a known.

James says that

"whatever I may be thinking of, I am always at the same time more or less aware of myself, of my personal existence. At the same time it is I who am aware; so that the total self is one, me, being as it were a duplex, partly known and partly knower, partly object and partly subject, must have two aspects discriminated in it." 36

The knower, James calls the I, and the known, he calls Me. The I is defined as "that which at any given moment is conscious"³⁷; while Me is defined as "one of the things which [the I] is conscious of".³⁸ Evidently, we can define consciousness as the Knower. And the function of consciousness is to Know.

From our previous discussion of James' criticisms of different theories of consciousness, we can conclude that James considers the existence of consciousness as a necessity, that consciousness is not an entity, that the word consciousness stands for a function and that that function is Knowing. In his famous article entitled "Does consciousness exist?"

³⁵ Ibid. p. 150.

³⁶ James. Psychology. p. 176.

³⁷ Ibid. p. 195.

³⁸ Ibid. p. 195.

James says that "consciousness is supposed necessary to explain the fact that things not only are, but get reported, are known".³⁹ In The Principles of Psychology, as we have seen, James considers consciousness as a "selecting agency". In both cases, the function of consciousness is to be considered pragmatically: consciousness "selects" the ends that are necessary for the survival of the organism, or consciousness "knows" the ends that are necessary for the survival of the organism. These two words, "select" and "knows" express the same function of consciousness. As we have seen also, according to James, this function is necessary for consciousness, if we are going to render evolution more than a mere hypothesis.

States of Consciousness

The best phrase that gives a description of consciousness, according to James, is "stream of consciousness". The model according to which this stream of consciousness is to be conceived is a physiological model -- the brain. The me, which includes both the nervous system and the brain, is always changing due to the different stimuli coming from the environment and affecting the brain. Therefore, the me is not the same on two different times.

Likewise, consciousness is always changing and no one state of consciousness is ever repeated twice. However, there is a connection between two successive states of consciousness. In every self, consciousness is conscious of the me of the previous state. For instance, today's state of the consciousness of me knows and identifies yesterday's

³⁹ James. Essays in Radical Empiricism. pp. 4-5.

state of the consciousness of me as "mine". However, the identity between the two different states of the consciousness of me is not a substantial identity. In fact, each one belongs to a different order. The present state of conscious is alive while yesterday's is dead and irrevocable.

According to James

"they have a functional identity, for both have the same objects, and so far as the by-gone me is one of those objects, they react upon it in an identical way, greeting it and calling it mine, and opposing it to all the other things they know". 40

James finds it essential that a distinction between me as a past object and other objects be made "because my own past experiences appear to me with a warmth and intimacy which the experiences thought of me as having occurred to other people lack".⁴¹ The feeling of warmth is what makes the self a personal continuity - personal continuity is a process of appropriation of the me by the I.

The relationship between states of consciousness and brain-states is a relationship of correspondence. It does not mean that every single state of consciousness corresponds to every single state of the brain; this is very difficult to know. But James feels that we can say, with less objection, that "the consciousness which is itself an integral thing not made of parts, 'corresponds' to the entire activity of the brain, whatever that may be".⁴² This correspondence is based on observations in psychology as well as in experience. For example, "the facts of

⁴⁰James. Psychology. pp. 202-3.

⁴¹Ibid. p. 204.

⁴²James. The Principles of Psychology. Vol. I, p. 177.

mental deafness and blindness, of auditory and optical aphasia, show us that the whole brain must act together if certain thoughts are to occur".⁴³ James states this explanation of correspondence between states of consciousness and brain-states with the utmost care because if we stretch the word 'correspondence' so as to mean an 'empirical law of concomitance between our thoughts and our brain, it tumbles down to pieces'.⁴⁴ One should not assume "correspondence" to represent anything more ultimate than an observation.

Sensations and Perceptions

Both sensations and perceptions are intimately related to consciousness. Concerning sensations, James says that "what we mean by sensations are First things in the way of consciousness".⁴⁵ Given the fact that consciousness is a part of the primordial stuff of the world, and sensations are the first things realized in it, it follows that those sensations can "only be realized in the earliest days of life".⁴⁶ Hence, these sensations are called immediate sensations, in order to be distinguished from later sensations which are mixed with perceptions and expectations. The way in which immediate sensations are distinguished is physiological. James says that sensations "are the immediate results upon consciousness of nerve-currents as they enter the brain and before

⁴³Ibid. p. 176-7.

⁴⁴Ibid. p. 177.

⁴⁵James. Psychology. p. 12.

⁴⁶Ibid. p. 13.

they have awakened any suggestions or associations with past experience".⁴⁷

There is another way of distinguishing between sensations and perceptions namely, through their objects. James says that "the object which a sensation knows is an abstract object which cannot exist alone. 'Sensible qualities' are the objects of sensation."⁴⁸ The object of perception, on the other hand, is "the thing to which the sensible quality belongs".⁴⁹ According to James the sensible qualities affect our sense-organs and the results, on consciousness, are described as ideas. So, we can define perceptions as "the consciousness of particular material things present to sense".⁵⁰

Images

Despite the differences in their objects, sensations and perceptions are alike in the sense that "their objects appear vivid, lively, and present".⁵¹ These common characteristics make sensations and perceptions quite different from images which are devoid of these characteristics. James says that

"objects merely thought of, recollected, or imagined, on the contrary, are relatively faint and devoid of this pungency, or tang, this quality of real presence which the objects of sensations possess". 52

⁴⁷ Ibid. p. 12.

⁴⁸ Ibid. p. 13.

⁴⁹ Ibid. p. 312.

⁵⁰ Ibid. p. 312.

⁵¹ Ibid. p. 14.

⁵² Ibid. Russell accepts these characterizations of images though he differs from James tremendously in his view of sensations.

Images, in general, can be differentiated from sensations also on the basis of their causations and effects. Sensations are caused by the presence of sensible qualities in the physical objects, which images are caused by cerebral activity. There is no need, according to James, to say that images and sensations have different physiological "seats". Both of them occupy the same local seat in the brain and involve the same sense-tracts. What is required, however, is to say that

"images are aroused always by way of association: some previous idea or sensation must have 'suggested' them. Association is surely due to currents from one cortical centre to another. Now all we need suppose is that these intra-cortical currents are unable to produce in the cells the strong explosions which currents from the sense-organs occasion, to account for the subjective difference between images and sensations." 53

In his article, mentioned before, "Does Consciousness Exist?", James distinguishes between sensations and images on the grounds of their effects. James says that we have a sensation of fire or an image of fire. Fire as an object of sensations may burn the hands or the sticks, or it may be put out by water, but the fire as a mental image may not burn the hands, or sticks, and water as a mental image may not put it out.

Both ways of distinguishing images from sensations are important, but the causal differentiation is more important from my point of view since it accounts for the different sorts of images that we may have. If images occur in the same physiological seat as sensations, then we might have as many images as we have sensations. And since we have different sense-organs as sources of sensations, we can say that these

⁵³Ibid. p. 12.

same sources of sensations are sources of different images. Thus, we may have visual images similar to visual sensations and auditory images similar to auditory sensations and so on.⁵⁴

Physical Objects

All natural sciences, including psychology, according to James, should assume the existence of a world of matter "altogether independently of the perceiving mind".⁵⁵ So, when James speaks of consciousness knowing objects, he admits that those objects can be the same on different occasions - although he denies that the consciousness is the same on two different occasions.

James believes that objects of consciousness can be either physical objects or thoughts, i.e., ideas. Each idea is always the same, immutable, undestructable; and it is part of an external unchangeable world - a Platonic world of Ideas. Physical objects, on the other hand, do change, but their changes are not so constant as the changes of the states of consciousness or the brain-states. For, according to James, the physical objects are very similar to the Aristotelian substances; each physical object has some essential characteristics, which do not change easily and some accidental qualities which change rapidly. James says that "every concrete particular material thing is a conflux of sensible qualities, with which we have become acquainted at various times".⁵⁶

⁵⁴Russell accepts this view of the different images without any change.

⁵⁵Ibid. p. 2.

⁵⁶Ibid. p. 312.

Some of these qualities are essential constituents of the thing, such as shape and size, and are to some extent constant; while there are other qualities which are also constituents of the thing but are more fluctuating and changing and are considered accidental.⁵⁷

Monism and Pluralism

James, as I said before, believes that Philosophy is the "science of all things". Accordingly, he attempts to build such a Philosophy. In Essays in Radical Empiricism, James speaks of his Philosophy "as a certain type of Weltanschauung". James says that "I give the name of 'radical empiricism' to my Weltanschauung ... Rightly or wrongly, I have got to the point where I can hardly see things in any other pattern."⁵⁸

As we have seen before, James is an ardent believer in evolution and apparently he makes the theory of evolution the corner-stone of his Weltanschauung. James calls the primordial stuff from which evolution starts, "pure experience". When this original stuff is arranged or distributed in some ways, the physical objects are obtained; and when it is distributed in some other ways, consciousness is obtained. Therefore, according to James, neither consciousness nor the physical objects are different from each other in any intrinsic way since both of them are made up of the same stuff.

⁵⁷ Russell rejects the notions of substance completely. He considers the physical object as a logical construction. The physical object as considered by physics is a "causal unit" of very similar sensations which are contiguous in space.

⁵⁸ James. Essays in Radical Empiricism & A Pluralistic Universe. p. 24.

However, the only difference between consciousness -- this term includes ideas or thoughts too -- and the physical objects is a difference resulting from classifying each of them under a different law. Basically, the original stuff of consciousness and physical objects is the same, that is, pure experience. For example, the physical objects are extended, and similarly, the objects of thought are extended. However the modes of extension belong to different laws. The extension of physical objects is an external extension while the "extension" of the objects of thought is an internal extension. Undoubtedly one cannot define the different senses of extension in James' theory of mind but one can describe those senses through different examples which James himself uses. According to James, it is quite unintelligible to say that the piece of land which we are measuring is extended but the measure or the meter which is an idea is not extended.*

In order to clarify the differences between a physical object and an object of thought, I would like to take some more examples. James says that if we take an instance of "perceptual experience",⁵⁹ say the room in which we are sitting now, we can see that the room can have two modes of existence: one is physical and exists in outer space with a long history, and the other is mental and exists in my consciousness and which started a few moments ago. The room in the physical mode is "the Terminus ad quem of a lot of previous physical operations, carpentering,

* The extension of ideas is a controversial issue, but it is not to our advantage to spend more time on it.

⁵⁹ Ibid. p. 8.

papering, furnishing, warming etc."⁶⁰ Likewise, that thing which is the room is "the last term of a train of sensations, emotions, decisions, movements, classifications, expectations etc."⁶¹ The difference is that when the room is considered as a mental state, It undergoes a certain law which is not applicable to it as a physical entity. It takes an earthquake or a group of men to destroy the room as a physical entity, but it takes nothing except a shutting of the eyes in order to eliminate the room as a mental object.

Also, if we take an instance of "nonperceptual experience",⁶² we will get the same result and distinction between physical laws and mental laws. Let us take an example of fire as an object of thought versus the fire as a physical event. We find that both of them are extended and related to the same objects. Both of them can be associated with heat, with water, sticks, and several other objects. The difference between the two sorts of fire and the objects they are related to, is that the

"mental fire is what won't burn sticks; mental water is what won't necessarily (though of course it may) put out even a mental fire. Mental knives may be sharp, but they won't cut real wood. Mental triangles are pointed, but their points won't wound. With "real" objects, on the contrary, consequences always accrue." 63

These examples show that there are two kinds of objects: physical objects and objects of thought. It shows also, according to

⁶⁰ Ibid. p. 10.

⁶¹ Ibid.

⁶² Ibid. p. 20.

⁶³ Ibid. p. 20.

James, that there is no fundamental difference between these objects because they are made up of the same stuff which James calls "pure experience".⁶⁴

James' Theory of Truth

James believes that ideas have a quality called "truth". This quality differentiates between ideas and dreams on the one hand and ideas and physical objects on the other hand. James says that "an idea becomes true, is made true by events".⁶⁵ These events, or physical objects, constitute the criteria for the truth of an idea. If "ideas" "agree" with the reality of physical objects, then these ideas are said to be true or else false. Agreement, according to James, is to be as 'hitting a target'. If our ideas lead us to reality, i.e., to our objectives, or near "its surroundings",⁶⁶ then those ideas are true, but if they lead us astray or away from our reality, then these ideas are false.⁶⁷

Russell's Evaluation of James

It should be noted that the following points are intended to be

⁶⁴Russell accepts James' distinction between objects of thought and physical objects, but he does not agree with James that the original stuff out of which mind and matter are made is pure experience. According to Russell the term experience implies the existence of matter and mind. To avoid such a presupposition, Russell believes that the original stuff out of which the world is made is more primitive and neutral. Both mind and matter can be constructed out of this neutral stuff.

⁶⁵James. Pragmatism. Meridian Books, New York, (1955).

⁶⁶Ibid. p. 140.

⁶⁷Russell objects to James' theory of truth on the grounds that in case of memory we remember some trivial and insignificant memories which do not lead us to any target.

general and hypothetical in the hope that subsequent attempts throughout the thesis will be made to give some evidence in their support. Meanwhile, the following points may serve as a summary of James' theory of mind as well as an elucidation of some of the major suppositions in Russell's analysis of mind.

On the whole, James' influence on Russell concerning the analysis of mind, is tremendous both positively and negatively. In a positive sense, Russell accepts some of James' theories unmodified. For example, Russell accepts with James the theory of evolution, and the theory of continuity in evolution. However, Russell does not give the same evidence in support of continuity which he calls a hypothesis and not a theory. Also, Russell accepts James' theory concerning the primordial stuff of the world as being one and concerning the causal difference between the physical objects and objects of thought. Furthermore, Russell accepts James' theory of images and their differences from sensations.

On the negative side, Russell rejects (1) James' theory of truth (2) James' theory of the original stuff as pure experience (3) James' theory of the physical object, (4) James' theory of sensations, and (5) James' theory of consciousness.

However, what is more interesting to notice is the fact that although Russell accepts some of the basic assumptions which James accepts, Russell gives different explanation for those same assumptions. For instance, James believes that the existence of consciousness as a knowing or selecting agency is necessitated by the physiology of the organism. Russell, on the contrary believes that consciousness with such a function as knowing is not necessary, it is even contrary to factual evidence.

According to Russell it is possible to give evidence for the hypothesis of continuity without postulating the existence of a knowing consciousness. This evidence, for Russell, can be based on modern physics, which makes the hypothesis of continuity highly probable.

II
DEVELOPMENT OF RUSSELL'S MINOR THESIS
CHAPTER THREE
SENSATIONS

Before devoting my attention to the discussion of sensations and immediate points related to them, I would like to bring up to the surface a tendency in my introduction to the effect that a clear understanding of Russell's theory of mind is possible provided we confine ourselves to one issue at a time. I should not deny that there is an awareness of the possibility of attaining some sort of understanding of the basic issues in Russell's theory of mind. But I do not want to oversimplify the issues by convincing myself and my reader that the way to achieving that understanding is on the whole easy.

Historically speaking, one can understand such a difficulty. When Russell published The Analysis of Mind, he was already a well-known figure in philosophy, mathematical logic, and politics. The implications of this fact are innumerable. Some of them are of immediate concern to us.

When Russell published The Analysis of Mind in 1918, he was forty-nine years old. He had plenty of time to think, discuss, write and travel. He had already written the Principles of Mathematics, Principia Mathematica, and Our Knowledge of the External World, to mention only a few of his works. He had already met Whitehead, Peano, Moore, James, Watson, and Wittgenstein, to mention only some. He had also travelled to the United States, China, France, Germany and Russia. He had lived through World War I.

In other words, when Russell wrote The Analysis of Mind, he had already had quite a substantial experience and a first hand acquaintance with the most important issues in the world, not only issues pertaining to politics but also issues pertaining to philosophy. He adopted Frege's logical analytical method in philosophy and accepted the achievements of modern physics, especially Einstein's theories of relativity and the atomic theories.

The essential observation to make in this context is that the understanding of Russell's theory of mind is not likely to be attained easily because that theory presupposes, and comes after, all the above mentioned facts. Since it is impossible to divert our attention to all of these problems, they should either be taken for granted or else ignored, for the hypothesis that claims that these facts are relevant to our main topic needs a separate proof by itself. However, from this stock of facts we can discuss only two important points that are very essential to our study and whose importance is not questionable. The first point is Russell's method and second Russell's theory of matter.

However, to embark on Russell's theory of matter, means to have already started with the thesis of neutral monism which I wanted to postpone until the end of the thesis. This confusion is the best example that an oversimplification of the presentation of Russell's theory of mind is dangerous. Yet we cannot devote enough time for the analysis of matter since it is not our major interest. Instead, I will attempt to deal with Russell's notion of a piece of matter in order to be able to define sensations.

Russell's Method

The discussion of Russell's method, even en passant, gives us additional evidence against any tendency for oversimplification. For an intelligent presentation of Russell's method cannot achieve its aim without giving a clear illustration of Russell's notion of philosophy and its distinctive features from science.

However, one can choose different sources for giving Russell's notions of philosophy, sciences and method. I will confine myself to a television interview taken with Russell on his 82nd birthday by the B.B.C. because it is short and more recent. Russell is asked "what is philosophy?" His answer is that different people give different notions or definitions of philosophy. Russell's own notion is that "philosophy is an incomplete science". According to Russell each science has a more or less definite subject matter on which all the scientists of that particular field agree. Some of them differ, but their differences concern issues related to the subject matter. In philosophy, however, there is no similar agreement. Then, Russell explains the function of philosophy as the reflection on what is known and the employment of such a knowledge to discover what is not known.

When the interviewer asks Russell "what do you call your philosophy?" Russell answers "logical atomism". According to Russell, philosophy is more likely to achieve its aim through its method. Russell calls his method the logical analytical method. The basic feature of the logical analytical method is that one starts from certain given data and then proceeds to analyse them until he cannot go any further in his analysis. Russell calls these simple units the logical atoms. These

logical atoms should be differentiated from atoms assumed in physics because we do not know yet whether these physical atoms are analyzable any further or not. This is an issue left for science to settle and philosophy should not rush to give any unscientific conclusion. However, the logical atoms are not affected by any new discoveries in science since they are dependent on logic only. Thus, the logical-analytical method will analyse its data down to these units, or atoms, which cannot be analysed any further. Then, on the basis of these atoms, we proceed to build up our previous data and attempt to discover new data.

Russell's Notion of a Piece of Matter

In the above paragraph, I used the word data without clarification. Russell uses the same word "data" in different situations with different meanings. It could be claimed that Russell's analysis of mind is at the same time a search for the definition of the data of psychology as different from the data of physics. This is undoubtedly true. However, the immediate point to know, now, is the difference between Russell's different uses of the word data. For instance, the set of information, beliefs, concepts, testimonies, etc., which constitute the objects of reflection in a scientific area, are vague, inaccurate, inexact and so on. They are called data in the sense of being objects under investigation.

After such an investigation is "well advanced"¹ we get some data which "appear as affording grounds for other parts of the science without themselves being believed on any other grounds except observation".²

¹Bertrand Russell. The Analysis of Mind. p. 298.

²Ibid. p. 298.

Let us take two examples -- one is psychology and the other is physics -- and see what their data are, in both senses of "data".

Russell believes that most philosophy books are full of unexamined data concerning psychology and physics. These philosophy books define psychology as the science which studies the mental substance or consciousness, and define physics as the science which studies the material substance. According to Russell, these unexamined data can be brought under investigation through the logical analytical method. As a result of such investigation both data of mental and material substances are explained away. Mind and matter are logical constructions out of more primitive data. Therefore, both psychology and physics need a redefinition. The definitions of psychology and physics emerge as we deal with Russell's theory of mind.

That one should start with the unexamined data rather than be skeptical about them is a very obvious fact, according to Russell. However, one can choose to doubt these data and carry his doubt further to the very existence of mind and matter. If this doubt is carried consistently, it is irrefutable. However, Russell believes that it is pathological. Russell believes that one should start with some data which are given either in experience or learned from books, and then try to clarify them on the hope that he might get to a new realm i.e., to what is not known in the data.

From the books of traditional philosophy and from the experience of common sense, it can be observed that there is a belief in the existence of physical objects such as tables. According to these views, there is an assumption to the effect that there is a thing-in-itself which may have

different appearances, yet still remain the same.

If this belief is examined carefully under the light of modern physics, it will appear that that assumption of the theory of the thing-in-itself as held by some philosophers and reinforced by common-sense is not scientifically intact. Therefore, if we are going to accompany modern science in our outlook of reality, it is necessary that we construct a hypothetical theory which gives credibility to our belief in the existence of physical objects and be scientifically sound. That the construction of such a theory is possible is of great importance for Russell. In what follows I will try to show how Russell constructs the theory of a piece of matter.

According to Russell the theory of the thing-in-itself claims that objects affect our sense organs and we get what is called sensations. Therefore, to have sensations, we must accept the fact that there are objects which are the causes of these sensations. However, Russell finds the logic of this theory of thing-in-itself unconvincing. That we have sensations is an irrefutable fact, but given this fact that we have sensations, can we infer the existence of anything else besides the sensations, such as the thing-in-itself? or other minds? The obvious fact is that such an inference goes beyond the evidence of sense, as Russell believes.

For instance, the holders of the theory of the thing-in-itself and common sense believe that when they see a table, they see a physical object. But they also believe that the table appears differently from different points of view. However, they explain such points of view as appearances of the same thing which underlies all these appearances and

which is more "real" than its appearances.

Russell accepts the common-sense belief in the appearances of the thing, but he objects to considering them "unreal" in comparison with an underlying reality which is the "real" thing. That this common-sense belief in the existence of different appearance is a true belief based on the facts of sense i.e., sensations, is undoubted by Russell. But the common-sense belief that these appearances are "unreal" and the belief in the existence of a "real" thing underlying these appearances, are considered by Russell to be invalid inferences which cannot be warranted by the facts of sense. According to Russell, it is more valid to say that these appearances are the real aspects of the thing, and the thing itself is a logical construction out of all the aspects concerned. If this construction can be shown to be logically unobjectionable and practically possible, then Russell will have devised a new method whereby he is able to support the common-sense belief in the existence of the external world and other minds without opening himself to the charges levelled on the theory of the thing-in-itself.

Russell takes the example of a table. The common-sense believes that as we walk around the table different aspects of the table are constantly observed. But the common-sense believes also that the aspects of the table are appearances of a thing which does not lend itself to change. However, Russell believes that all that is possible and correct to say, in this context, is that in walking around the table, "we perceive a series of changing visible objects".³ Even in our language

³ Bertrand Russell. Our Knowledge of the External World. W.W. Norton & Co., Copyright (1929), p. 82.

when speaking of "walking around the table", we should drop the word "table" and say that while

"we have those muscular and other sensations which make us say we are walking, our visual sensations change in a continuous way, so that, for example a striking patch of color is not suddenly replaced by something wholly different, but is replaced by an insensible gradation of slightly different colors with slightly different shapes." 4

Russell believes that our sensations do not err. Illusion and error are the effects of inferences and do not affect the facts of sense.

Accordingly, Russell confines himself to sensations and tries to construct a theory which explains the common-sense belief in the existence of physical objects. Russell starts with the fact that there are physical objects and minds, and his investigation is concerned with the nature of the physical objects; and later on he investigates in The Analysis of Mind, the nature of mind.

Russell assumes that there are minds and each one "looks upon the world as in Leibniz's monadology, from a point of view peculiar to itself; and for the sake of simplicity let us confine ourselves to the sense of sight, ignoring minds which are devoid of this sense"⁵ Russell also assumes another point, namely, that there is a universe in which theories of modern physics hold such as the theories of relativity and the atomic theories.

From the assumptions that there is a universe and there are minds, Russell derives the conclusion that there are as many perceived worlds as

⁴Ibid. p. 82.

⁵Ibid. p. 92.

there are minds with sight. However, Russell feels that there is no logical necessity for limiting ourselves to say that there are only perceived worlds. We can assume further "that there is an infinite number of such worlds which are in fact unperceived".⁶ For example, say there are two minds A and B (i.e., two persons A and B) sitting near each other. Their "two somewhat similar worlds are perceived by them".⁷ Now, if a third mind C joins them and sits between A and B, a third world is added to the two worlds perceived respectively by A and by B, and is intermediate between these two worlds. According to Russell, there is no logical objection to saying that the intermediary world of C was present even before the coming of C at least "some aspect"⁸ of this intermediary world has existed before the coming of C.

It is also logically possible to add all the perceived views of the universe with all possible unperceived views of the universe and make up one whole system. Russell calls this universe "the system of 'perspectives'".⁹ Within this system a perceived universe is called a perceived perspective or a "private world", and an unperceived universe is called an unperceived perspective.

Russell believes that the system of perspectives can be classified in different terms. It is possible to say that the "system of perspectives" is the "perspective-space"¹⁰ and the perceived perspective is a "private-

⁶Ibid. p. 92.

⁷Ibid. p. 93.

⁸Ibid.

⁹Ibid. p. 93.

¹⁰Ibid. p. 94.

space".¹¹ The private spaces exist in perspective-space which is a "relation between the perspectives and is not in either of them".¹²

Taking up again our previous example of the two worlds of A and B, we can say that the private-space of A is somewhat similar to the private-space of B because they are near each other in perspective-space. The nearer the worlds are in the perspective-space the more similar they are or the more similar the nearer. Also, the farther the worlds are from each other in perspective space the more distinct they are or the more distinct the farther.

The notion of similarity is very essential in Russell's theory under construction. Given the notion of similarity in private-spaces, it is possible to identify the "things" in a private-space which are similar to the "things" in the nearly private space. It is possible also to correlate the "things" in one private space with the similar "things" in the other. According to correlations of this sort we get the definition of a physical object or thing. Russell says that

"given an object in one perspective, from the system of all the objects correlated with it in all the perspectives; that system may be identified with the momentary common-sense 'thing'. Thus an aspect of a 'thing' is a member of the system of aspects which is the 'thing' at that moment ... All the aspects of a thing are real, whereas the thing is a mere logical construction." 13

The above definition of the thing as a system of aspects might seem very vague. So we can attempt to make it clearer through an example.

¹¹Ibid.

¹²Ibid. p. 93.

¹³Ibid. p. 94.

Russell chooses a penny on the supposition "that any other 'thing' than our penny might have been chosen".¹⁴ Let us say that mind A is seeing the penny. It is clear, then, that we can say that both A and the penny occupy different perspectives in the perspective-space. This can be seen through the fact that each one of them is occupying a different "place". For instance, the place where the penny is, is defined as the intersection of two lines of perspectives seeing the penny. Let us suppose that, from a certain perspective the penny appears circular,

"We can, then, form a whole series of perspectives containing a graduated series of circular aspects of varying sizes: for this purpose we only have to move towards the penny or away from it." 15

This series of appearances can be ordered in the form of a straight line where the aspects will be arranged according to their sizes; the largest is the nearest to where the penny is.

On the other hand, we can form

"another straight line of perspectives in which the penny is seen end-on and looks like a straight line with certain thickness. These two lines will meet in a certain place in perspective space i.e., in a certain perspective." 16

The intersection, or meeting, of these two straight lines, Russell defines as the place where the penny is. This place is a perspective in perspective space.

Russell thinks that this definition of "the place" may cause some practical difficulties, but it is plain, according to him, that these

¹⁴ Ibid. p. 95.

¹⁵ Ibid.

¹⁶ Ibid. p. 96.

difficulties "cannot affect the principle".¹⁷ The principle states that the object is not to be considered as the thing where the object is. The place, where the thing is, is only one perspective, of the object, which is not more important or essential to the definition of the "object", than any other place from which the object is seen.

In fact, if we say that there is one mind A seeing the penny, then the perspective of A constitutes an essential part in the definition of the penny as much as the perspective where the penny is. Thus, the perspective of A should not be excluded when we are defining the penny. Moreover, there is no logical grounds for including A only. According to Russell, it is logically possible that there is an infinite number of perspectives either perceiving or not perceiving the penny; these perspectives should be considered when the penny is defined. The definition of the penny, then, is the system of all the aspects of perspectives. These "aspects of a thing are real, whereas the thing is a mere logical construction".¹⁸

Russell believes that if this hypothetical theory, according to which we are able to define the physical object as a system of aspects, is logically valid, then two conclusions can be drawn out of it. (1) The common-sense belief in the existence of the external world and other minds is "logically unobjectionable".¹⁹ (2) The data of physics and psychology as ordinarily accepted by books of traditional philosophy need a re-examination. Russell redefines physics as the science concerned with the

¹⁷ Ibid. p. 97.

¹⁸ Ibid. p. 94.

¹⁹ Ibid. p. 102.

classification of the aspects at the place where the perspective appears, and psychology is defined as the science which is concerned with classifying the aspects from which that perspective appears.

Causal Laws

Russell believes that

"the laws of traditional physics, in the form which they deal with movements of matter or electricity, have an apparent simplicity which somewhat conceals the empirical character of what they assert." 20

Traditional physics treats a piece of matter as a single existing thing but, according to Russell, this is not any more true. The piece of matter is a system of aspects causally connected and the thing is a logical construction.

Traditional physics has also another notion, that of causation which modern physics renders as "fundamentally erroneous".²¹ Causal connection, according to traditional physics, is a constant conjunction between the cause and the effect. Whenever the cause A occurs, it must be followed by its effect B. However, modern physics requires another conception of causation. The notion of causation as a constant conjunction between the cause and the effect should be "replaced by a quite different notion that of laws of change".²² According to the laws of change, which are to be expressed in terms of the "differential equation as embodying causal laws",²³ a physical law is not to say that "A will be followed by

²⁰ Bertrand Russell. The Analysis of Mind. p. 97.

²¹ Ibid. p. 93.

²² Ibid. p. 93.

²³ Ibid. p. 95.

B", but rather it should tell us

"what acceleration a particle will have under given circumstances, i.e., it tells us how the particle's motion is changing at each moment, not where the particle will be at some future moment." 24

According to Russell, change can happen to a piece of matter in two ways, either when some changes occur in the intervening medium, for example, if we are looking at our friend Mr. Jones and then shut our eyes, or when the changes occur in the piece of matter itself, say when Mr. Jones leaves the room, so we cannot see him any more, even if we open our eyes. In this second case of change, when the piece of matter itself changes its place or perspective, a whole set of aspects altogether have undergone a "connected change".²⁵ For Russell this connected change is, perhaps, what makes physics consider a system of aspects as a "causal unit"²⁶ i.e., a "physical object". When physics identifies a system of aspects as a causal unit, it is able also to "reduce the laws of most changes with which it deals to changes in physical objects".²⁷

However, physics is not the only science interested in the aspects or appearances of a piece of matter, psychology is interested in the appearances of a piece of matter too. Psychology is interested in the particular appearances as forming, over a period of time, not only a moment, but a biography. Physics is interested in a set of appearances as forming a causal unit which is momentary. Physics is interested in

²⁴Ibid. p. 95.

²⁵Ibid. p. 103.

²⁶Ibid. p. 104.

²⁷Ibid.

the present causal unit, while psychology is interested in the past experience as well as the present of a particular object. The connection between the past and the present is a mnemonic connection, that is, some appearances have a causal connection to past appearances. The experience of past appearances influences the experience of the present appearances in such a way as to compel us to consider the relationship between past and present occurrences causal. Physics seeks laws of change, while psychology seeks mnemonic causal laws. Russell says that

"if there are to be purely psychological causal laws, taking no account of the brain and the rest of the body, they will have to be of the form, not 'x now causes y now' but ... 'A,B,C, ... in the past together with x now cause y now'." 28

An example of mnemonic experience can be seen in language. A word does not have an influence on our behaviour unless we have known it before. A French word does not have an effect, its usual effect on people who know French, on a person who does not know French.

The Definition of Sensations

Our discussions of the piece of matter and the causal laws are not irrelevant to the definition of sensations. In fact, they are very essential. For instance, when we were discussing the definition of a piece of matter, we have considered sensations as sense data, or facts of the sense. Russell abandons the use of sense data in The Analysis of Mind. However, the names of sensations do not affect Russell's theory of a piece of matter as a system of aspects since he accepts this theory of physical objects in The Analysis of Mind.

²⁸Ibid. p. 87.

The basic point to infer from the relationship between sensations and a piece of matter is that the definition of sensation is fundamentally related to the definition of a piece of matter. Further, we can attribute the changes in Russell's definition of sensations in The Analysis of Mind to a progress and growth in his point of view. In other words, we can say that Russell abandoned the view of sensations as sense data only in favor of a more general theory which makes sensations the original stuff of the world which constitutes the data of physics and psychology.

Also, our discussion of the causal laws is very helpful in giving us different facets of defining sensations. For instance, in terms of the causal laws, Russell says, "we could call an occurrence 'physical' when it obeys causal laws appropriate to the physical world, and 'mental' when it obeys causal laws appropriate to the mental world",²⁹ However, such a distinction is not so sharp and the interaction between the "physical" and mental is very obvious.

Such interaction between the mental and the physical is obvious in two cases. The first case is sensations. Sensations could be defined as those events which have physical causes and mental effects. The second case is voluntary movements where the causes are mental and the effects are physical.

However, according to Russell, these definitions of sensations and voluntary movements

"would have all the precision that could be desired if the distinction between physical and psychological causation were clear and sharp. As a matter of fact, however, this distinction is, as yet, by no means sharp. It is possible

²⁹ Ibid. p. 138.

that with fuller knowledge, it will be found to be no more ultimate than the distinction between the laws of gases and the laws of rigid bodies. It also suffers from the fact that an event may be an effect of several causes according to several causal laws: we cannot, in general, point to anything unique as the cause of such-and-such an event. And finally, it is by no means certain that the peculiar causal laws which govern mental events are not really physiological." 30

There is still another way in which a definition of sensations is possible. The causal laws of psychology have a mnemonic characteristic which includes the connection between present occurrences and similar past occurrences. A sensation, then, can be defined as "the non-mnemonic elements in a perception",³¹ Since we have not defined perception yet, we cannot understand the definition of sensations in terms of perception very clearly. Generally speaking, in an act of perception there are several elements involved, past elements in form of memory, future elements in form of expectation, and present elements in form of sensations.

Even this definition of sensations in terms of mnemonic phenomena is not very immune from difficulties. For how are "we to decide what elements in our experience are of the nature of sensations?"³² We can say, according to Russell, "that Prima facie everything is sensation that comes to us through the senses: the sights we see, the sounds we hear etc."³³ But even simple events like these are mixed up with all sorts of interpretation, correlation, and expectation. However, these

³⁰ Ibid. pp. 138-9.

³¹ Ibid. p. 139.

³² Ibid.

³³ Ibid.

correlations would not be noticed except under certain situations. We do not know, for example, how much we do supply what we really hear with inferences to what is being said unless we are in a foreign country whose language we do not know very well.

Nevertheless, the core of sensations can still be distinguished from habit, expectation, and interpretation because these events are "aroused on diverse occasions, and the diversity is clearly due to differences in what is presented to the senses".³⁴ Thus, we can see that the core of sensations is to be "the source of our knowledge of the world, including our own body".³⁵

Now, if sensations are to be considered the source of knowledge, and if knowledge includes elements other than sensations such as memory, we can say, then, that sensations are common to "the mental and the physical worlds".³⁶ In so far as they are the appearances of the physical objects, sensations belong to the physical world and are data of physics. In so far as they are associated with memory and in so far as they give rise to images, sensations belong to the mental world and constitute the data, part of the data, of psychology.

The physical world, as we have seen, is constituted of causal units or systems of appearances-sensations; while the mental world is constituted of sensations and their effects, namely, images. There are some people, like the behaviorists, especially Watson, who do not

³⁴ Ibid. p. 140.

³⁵ Ibid. p. 141.

³⁶ Ibid. p. 144.

believe that images exist and who believe that knowledge is knowledge of behavior. Russell, however, does not agree with Watson that images do not exist or knowledge is only knowledge of the behavior. Russell believes that the mental world, that is all the mental phenomena can be constructed or are made up of, sensations and images. Images are "copies of" or "effects of" sensations. Russell believes also, that the facts of introspection reveals that there is a visualizing faculty which is responsible for the existence of images. The facts of introspection are not to be discarded on the basis of their privacy as Watson claims because all our knowledge, according to Russell, is basically distinguished as being uniquely private. Knowledge is distinguished by being relative to a certain point of view much similar to what the theories of relativity declare, in modern physics.

CHAPTER FOUR

IMAGES

Although I am going to devote a section to images, I cannot show in this section the whole value of images in Russell's analysis of mind for the following reason. Images form an integral part of all mental phenomena. Therefore, a full elucidation of images cannot be achieved before some of these phenomena, at least, have been dealt with.

Consequently, I would like to divide my study of images into five parts: (i) the existence of images (ii) the definition of images (this will include the discussion of some of the relationships between images and sensations) (iii) images and memory (iv) images and belief, and (v) images and words.

However, in the following section, I will deal with (ii) because (a) I have already dealt with (i) in the chapter on behaviorism and (b) I will deal with the remaining parts of images while dealing with memory, belief, and words.

Definition of Images

It should be remembered that when we were dealing with behaviour we said that images do exist and the best way of knowing them was introspection. Likewise, when we were discussing James' theory of mind we said that images are different from sensations not in their neurological centers or seats, but in their causes and effects. Sensations are caused by external stimuli while images are caused by neural stimuli.

However, Russell believes that

"James, in the passage about the mental fire which won't burn real sticks, distinguishes images by their effects, but I think the more reliable distinction is by their causes." ¹

There seems to be a contradiction between what I say, namely, that James distinguishes between sensations and images in terms of their causes and effects, and what Russell says, namely, that James distinguishes between sensations and images on the basis of their effects. In fact, there is no such contradiction between what I say and what Russell says. Russell does not say that James does not distinguish images by their causes, Russell says only that James "distinguishes images by their effects in the passage about mental fire" which is taken from Essays in Radical Empiricism. This is true of James in Essays in Radical Empiricism. It is also true that James in Psychology distinguishes images by their causes. I gave the quotation where James claims that, before, and I repeat it now. After saying that images are aroused by way of association, James says that

"association is surely due to currents from one cortical centre to another ... these intra-cortical currents are unable to produce in the cells the strong explosions which currents from sense-organs occasion." ²

However, it should be noted that Russell and James are not using the word "cause" in the same sense or with the same reference. According to James, the causes that arouse images are physiological, neurological centers associate with each other in such a way as to produce the present

¹Bertrand Russell. The Analysis of Mind. p. 149.

²William James. Psychology. p. 310.

images. Further, James believes that no two images can be associated together and remain as they were before the association, there is only one image in the consciousness. A present image exists in the present state of consciousness while a past image of a past state of consciousness is dead and belongs to the world of Ideas. According to James, there is no way of associating the present image in a present state of consciousness with a past image of a past state of consciousness in one state of consciousness occurring at the present moment.

Russell, on the other hand, does not accept James' view of consciousness. Instead, Russell accepts the mnemical character of psychological causal laws. According to the mnemic causal laws, association is not only possible but also necessary. Therefore, when Russell distinguishes images by their causation, he does not necessarily mean only the physiological sense which James mentions. Russell feels that this physiological sense of causation, by itself, may "probably be true".³ Nevertheless, Russell rejects it because this view of "the centrally excited sensations" assumes more than is necessary, since it takes it for granted that an image must have a physiological cause".⁴

Consequently, one can say that Russell's notion of cause, in this context of images, includes and goes further than James' notion of cause. Russell's notion of cause has a mnemic character, it is based on association of past experience with the present experience. We can say, then,

"that an image is occasioned, through association, by a sensation or another image, in other words that it has a

³Bertrand Russell. The Analysis of Mind. p. 150.

⁴Ibid. p. 150.

mnemic cause-which does not prevent it from also having a physiological cause." 5

I think that this discussion of the differences between James' view of the causes of images and Russell's view is not futile; it points out (a) Russell's understanding of the origination of images and (b) which direction we should look for a proper definition of images.⁶

Russell distinguishes three definitions of images. The first definition postulates the criterion of vividness, the second definition suggests the criterion of a feeling of reality, and the third definition distinguishes between images and sensations in terms of their originations.

A. The Definition From Vividness

Hume distinguishes between impressions and ideas (sensations and images in Russell's terminology) on the basis of their relationship to the criterion of vividness. Impressions are defined by Hume as "those perceptions which enter the mind with most force and violence while he defines ideas as the faint images of these".⁷ However, such a distinction is not absolute, according to Hume himself it admits a difference of degrees. "In particular instances, they may very nearly approach each other"⁸ i.e., impressions and ideas.

Russell believes that if Hume considers his criterion of vividness

⁵ Ibid. p. 150.

⁶ Russell believes that the essential characteristics of a definition is that it should prove "a mark which is applicable even in marginal cases". Ibid. p. 146.

⁷ Ibid. p. 146.

⁸ Ibid. p. 146.

to be inadequate for all cases then there is "no reason to think that the difference between sensations and images is only one of degree".⁹ However, there are some people, like Professor Stout, who believe that Hume's criterion, with some amendment, will become adequate. Professor Stout believes that "the percept has an aggressiveness which does not belong to the image".¹⁰ For example, in the case of a just visible star or just audible sound, our sensations become very faint, but "no mere image ever does strike the mind in this manner".¹¹

Russell, nevertheless, objects to Professor Stout's amendment of Hume's original criterion of vividness on the ground that sometimes images do strike the mind with force and aggressiveness. For example, some images do "unfix the hair" as Macbeth says

"that suggestion
Whose horrid image doth unfix my hair
And make my seated heart knock at my ribs
Against the use of nature." 12

B. The Feeling of Reality

According to this definition, a sensation is distinguished from an image in the absence of a belief in the "physical reality"¹³ of images. It is claimed that

"when we are aware that what we are experiencing is an image, we do not give it the kind of belief that we should give to a sensation." 14

⁹ Ibid. p. 147.

¹⁰ Ibid. p. 147.

¹¹ Ibid.

¹² Ibid. p. 147.

¹³ Ibid. p. 148.

¹⁴ Ibid.

Russell objects to this definition on the basis of its vagueness and circularity. That this definition is vague appears from the different meanings "the unreality of images" may take. For instance, the unreality of images should not mean the non-existence of images, since images do exist and "are just as truly a part of the actual world as sensations."¹⁵ Evidently, the unreality of images should mean that images do not obey the physical laws, they belong to the psychological causal laws.¹⁶

The other difficulty in the definition of images according to the feeling of reality is circularity. That this definition of images is circular can be shown in the following manner. Russell argues that

"images cannot be defined by the feeling of unreality because when we falsely believe an image to be a sensation, as in the case of dreams, it feels just as if it were a sensation." 17

Also, when we feel that an image is unreal "we have already realized that we are dealing with an image, and cannot therefore be the definition of what we mean by an image."¹⁸

C. The Definition From Causation

Russell believes that the "only universally applicable criterion"¹⁹ is that one which differentiates between sensations and images on the basis of their causes and effects. Images have mnemonic causes in which

¹⁵ Ibid. p. 148.

¹⁶ The reality of images will be discussed at a later stage.

¹⁷ Ibid. p. 149.

¹⁸ Ibid. p. 149.

¹⁹ Ibid. p. 145.

"habit and past experience"²⁰ play a major part, "though they may also have physical causes"²¹ in the sense which James attributes to them. However, sensations "will only have physical causes."²²

Also, on Russell's view, sensations differ from images in their effects. "Sensations, as a rule, have both physical and mental effects."²³ For example, if you are in a hurry to get the bus of midday and you arrive in while the bus is leaving, then the event of the missed bus will have two effects: the first is "the successive positions"²⁴ of the bus and the second is "the successive waves of fury and disappointment".²⁵ However, images "may produce bodily movements,"²⁶ though they do so "according to mnemonic law, not according to the laws of physics".²⁷

Summary

In order to understand Russell's minor thesis we have found it essential that we should have definitions of sensations and images. But we have found also that such definitions are not possible before we define a piece of matter. The definition of a piece of matter has led us to discuss Russell's notion of philosophy and Russell's method. As a

²⁰ Ibid. p. 150.

²¹ Ibid. p. 151.

²² Ibid.

²³ Ibid. p. 151.

²⁴ Ibid.

²⁵ Ibid.

²⁶ Ibid.

²⁷ Ibid.

result of these discussions, we have discovered that Russell is attempting new definitions of physics and psychology. The new definitions of physics and psychology are partly due to Russell's logical-analytical method and partly due to his outlook on the world which is based to a certain extent on modern physics, the Humean tradition, and personal experience.

Physics, as Russell defines it, is interested in treating a piece of matter as a system of appearances causally connected. Psychology is defined as a science interested in each particular appearance and in the causal relationship between these appearances which make up a biography. The causal laws in psychology have a mnemonic character. The laws of physics are laws of changes.

According to the definitions and discussions of the previous issues we have been able to define sensations mainly as those events which have only physical laws and define images as events having both physical causes and psychological causes.

CHAPTER FIVE

RUSSELL'S MINOR THESIS (Perception)

All mental phenomena can be
reconstructed out of sensations
and images and their relationships.

In order to show that this is Russell's thesis, I would like to give some quotations sampled out from different parts of The Analysis of Mind whereby Russell explicitly holds such a thesis.

Firstly, when he is speaking about introspection, Russell claims that such a method should not be discarded as the behaviorists maintain. Introspection, Russell believes, is the only method whereby images can be known. However, this does not mean that this method is infallible or it "reveals a mental world radically different from sensations"¹ as some philosophers believe. Russell argues against this view which makes the data of introspection radically different from sensations and he proposes to show, in his way of analyzing the mind,

"that thoughts, beliefs, desires, pleasures, pains, and emotions are built up out of sensations and images alone, and that there is reason to think that images do not differ from sensations in their intrinsic character."²

Secondly, when he is dealing with desires and feeling, Russell says that

"I believe that sensations (including images) supply all the 'stuff' of the mind, and that everything else can be

¹Bertrand Russell. The Analysis of Mind. p. 121.

²Ibid. p. 121.

analysed into groups of sensations related in various ways, or characteristics of sensations or of groups of sensations." 3

Thirdly, Russell says, concerning emotions and will, that he has nothing original to say about them and he is "treating them only in order to complete the discussion of my main thesis, namely that all psychic phenomena are built out of sensations and images alone".⁴

Fourthly, in the concluding chapter of The Analysis of Mind, Russell says that

"if we have been right in our analysis of mind, the ultimate data of psychology are only sensations and images and their relations. Beliefs, desires, volitions and so on, appeared to us to be complex phenomena consisting of sensations and images variously interrelated." 5

I think that these various quotations provide us with solid grounds for holding the belief that Russell claims in, The Analysis of Mind, that all mental phenomena can be constructed out of sensations and images and their relationships. However, there is in the previous quotations an apparent inconsistency, namely sometimes Russell says that mental phenomena can be constructed out of "sensations and images alone" as in quote three, and sometimes he says that mental phenomena can be constructed out of "sensations and images and their relationships" as in other quotations. Nevertheless, this inconsistency is not real at all since the relationship between images and sensations can be recon-

³Ibid. p. 69.

⁴Ibid. p. 279.

⁵Ibid. pp. 299-300.

structured out of images and sensations.* Therefore, when Russell speaks of "sensations and images alone", he does not exclude their relationships, he only excludes any other element not reducible to sensations and images. Besides, relationship, in these contexts, is a psychological datum, and not a logical concept.

The other step, which complements the first step of giving various quotations supporting my thesis, should consist of giving some examples whereby Russell shows how the thesis works. However, our examples should be limited mainly to what is "called the 'cognitive' elements in mind" namely, perception, memory, and belief, excluding what "would ordinarily be called 'mental' such as desire and pleasure and pain".⁷

However, some preliminary observations seem desirable before we start our main work. First, it should be remembered that Russell, in accordance with his logical-analytical method starts with some received data and then analyses them and sifts them out. The theory of mind with which Russell starts his analysis holds "that the essence of everything mental is a certain quite peculiar something called 'consciousness', conceived as a relation to objects, or as a pervading quality of psychic phenomena."⁸ The most immediate and basic objection which Russell holds

* Although Russell does not explain explicitly the full nature of the relationship between images and sensations, he gives the law of association as an instance of that relationship. The nature of this difficulty will become clearer as we go along to investigate sensations, images and memory.

⁶Ibid. p. 18.

⁷Ibid. p. 18.

⁸Ibid. p. 5.

against this theory, is that consciousness "is far too complex and accidental to be taken as the fundamental characteristic of mind"⁹.

Second, it should be remembered also that Russell's view of man is very similar to James' and is not very different from Watson. Russell believes that man is an animal and there is no intrinsic difference between the animal and the dead matter. Russell accepts with James the theory of evolution and the theory of continuity. However, Russell considers the theory of continuity a hypothesis which is highly probable. According to this hypothesis, Russell holds that there is no intrinsic difference between man and the animals. So, any theory which assigns anything "peculiar" such as "consciousness", as the theory mentioned in the first observation, to man is contrary to what Russell believes. For Russell there is sufficient evidence for believing that the theory of evolution is true.

For instance, the studies of child psychology and the findings of psychologists who studied animal behavior and behaviour of the mentally retarded adults, give a sufficient evidence that there is a great similarity between man and animal. Moreover, these psychologists, especially behaviorists have shown that the study of the animal behavior facilitates the study of the human behavior.

On the basis of the above observations, we can state one of the most important assumptions underlying Russell's theory of mind. Russell says that

"in attempting to understand the elements out of which mental phenomena are compounded, it is of the greatest

⁹ Ibid. p. 294.

importance to remember that from the protozoa to man there is nowhere a very wide gap either in structure or in behavior. From this fact it is highly probable inference that there is also nowhere a very wide mental gap." 10

The Definition of Perception

Our interest in perception, it should be noted, does not go as far as Professor Grover Maxwell's. We are not concerned with Russell's later views "on perception and related matters"¹¹ What interests us here is the definition of perception and how it verifies our thesis which claims that all mental phenomena can be reconstructed out of images and sensations and their relationships.

In our discussion of a piece of matter, we have defined a physical object as a system of appearances or aspects. We have also said that these aspects can be classified into two sets: as a set of appearances at the place where the object is, and as sets of successive appearances from other places. This different classification can be expressed in an example. Say, an actor is on the stage. We can either "collect together all the aspects which he presents to different spectators at one time"¹² or "collect together all the aspects which he presents successively to a given spectator, and then do the same thing for the other spectators." 13

The second way of collecting aspects is of interest to psychology and

¹⁰ Ibid. p. 41.

¹¹ David Pears. Bertrand Russell: A Collection of Critical Essays. Anchor Books. Doubleday & Co., New York (1972), p. 110.

¹² B. Russell. The Analysis of Mind. p. 127.

¹³ Ibid. p. 127.

gives the definition of a biography. The first way of collecting aspects gives us the definition of a perspective, i.e., the intersection of all the private spaces at one place in perspective-space.¹⁴

Given the definition of a biography and the definition of a piece of matter, we can define space and time. Time as well as space pertain to each biography. There is no universal notion of space or of time except as a logical construction of the relationships between private spaces and private times.

Similarly, once we are able to define private time, we can define the notion of simultaneity. Events simultaneous with my sensation, say a sound, "are events in my private world, i.e., in my biography".¹⁵ Furthermore, we can define "the biography to which the sensation belongs as the set of particulars that are earlier or later than, or simultaneous with the given sensation".¹⁶ However, this definition cannot be achieved without the use of the notion of

"mnemic phenomena which constitute the unity of one 'experience' and transform mere occurrences into 'experiences'. It is they that give the continuity of a 'person' or a 'mind!'" 17

In our example of the actor and the spectators, we have called the set of appearances collected in the place where the actor is a perspective. Now, we can substitute the name "body" for the name "perspective". The previous classification of aspects as a perspective and a

¹⁴ See my definition of a piece of matter.

¹⁵ Ibid. p. 128.

¹⁶ Ibid. p. 128.

¹⁷ Ibid. p. 129.

biography can be changed to a body and a biography or a body and a mind.

We can take an example say, a star, a human brain, and a photographic plate. When there is a human brain and a nervous system in the medium where the star appears, we get what is called sensations. Similarly, if there is a photographic plate in the medium where the star appears, we will get similar sensations. Therefore, the sensations of the brain and the sensations of the photographic plate can be correlated together and give what is called "the star". Also, the two sets of sensations as reflected by the human brain and the photographic plate meet in one place where the star is. This means that we have three places involved in our example (i) the place where the star, as a logical construction, is, (ii) the place where the human brain is, and (iii) the place where the photographic plate is. The "star" in this case is a logical construction, what exists in point of reality are the appearances at place (i) place (ii) and place (iii) correlated together.

The object, say, the star, is not of great importance at the moment. What is important is the way or ways in which, it is possible to classify sensations. We said before that sensations belong to two worlds the physical world and the mental world. Now, in our previous example, it is possible to classify sensations in two ways. Let us take first the sensations as deflected or registered by the photographic plate. We have said that the aspects of a physical object can be classified either as a body or a biography. Each physical object, in this case, a photographic plate, is constituted of two parts a body and a biography. The human being does not differ from any other physical object, he is

also constituted of two parts a body and a biography.¹⁸ Sensations, therefore, in the case of a photographic plate can be ordered in two ways and can be parts of the body and parts of the biography. When we take, secondly, the human brain the same orders apply; sensations are considered as parts of the human body or the brain and parts of the biography of man.¹⁹

However, there is some difference between the biography of the photographic plate and the biography of the human brain. As far as sensations are concerned, there is no special difference between the human mind or biography and the biography of the photographic plate; both of them have their individual points of view. The sensations of the photographic plate are considered aspects of the star as much as the sensations of the human brain. Any biography has its subjective point of view. The difference between the biography of the human brain and the biography of a photographic plate is due to the characteristics of mnemonic causation which characterizes the human biography. The difference between the biography of a photographic plate and the biography of man is the same as the difference between sensations and perceptions.

A sensation has its causation only in the physical world and as such is the source of knowledge, but not knowledge. A perception on the other hand has its causation in the physical world, through sensations, and in the mental world, through mnemonic influence of past experience. A perception involves recognition because it involves memory and past exper-

¹⁸Ibid. p. 129.

¹⁹Ibid. p. 130.

ience and expectations too.

Russell defines a perception as

"the appearance of the object from a place where there is a brain ... With sense organs and nerves forming part of the intervening medium. Such appearances of objects are distinguished from appearances in other places by certain peculiarities, namely:

- (1) they give rise to mnemonic phenomena
- (2) they are themselves affected by mnemonic phenomena."²⁰

Mnemonic causation and its effects do not occur where there is no human brain in the medium. A photographic plate senses only, but a human being senses and perceives. In perception, the human mind can associate past experience with present sensations. Past experience includes memory, habits, expectations, beliefs, etc. Now, if these phenomena are characterized by mnemonic influence, and all mnemonic influences have images, then we can say that perceptions are composed of images as far as they include past experience and of sensations as far as they include present events. Therefore, if perceptions can be constructed out of these two elements, sensations and images, then our thesis holds in this instance of the analysis of perception.

²⁰Ibid. p. 131.

CHAPTER SIX

RUSSELL'S MINOR THESIS

The Analysis of Memory

The analysis of memory plays an important role in Russell's theory of mind for a number of reasons. First, it confirms Russell's minor thesis which claims that all mental phenomena can be reconstructed out of sensations and images and their relationship. Second, it "introduces us to knowledge in one of its forms."¹ And, thirdly, we get an explanation of what images are and how they stand in their relationship to sensations, within the content of memory.

A. What is memory

In accordance with his method, Russell usually starts his analysis from somewhat vague data and then attempts to get to some more precise data. In connection with memory, there are some "vague but indubitable data".² First, "there is knowledge of the past".³ We know, for example, however skeptical we are, that we got up this morning, we had a breakfast, we were born etc. etc. "The second datum is that we certainly have more capacity for knowing the past than for knowing the future."⁴ For instance,

¹Bertrand Russell. The Analysis of Mind. p. 157.

²Ibid. p. 164.

³Ibid. p. 165.

⁴Ibid. p. 165.

we cannot know that there will be an eclipse on a certain day in the same ease that we remember many things of the past such as the people we met, the places we have visited, etc. The third point "is that the truth of memory cannot be wholly practical, as the pragmatists wish all truth to be".⁵ A memory is true or false not in virtue of its future consequences, but in virtue of some past event.

On the basis of these vague data, memory can be defined "provisionally, though perhaps not quite correctly ... as that way of knowing about the past which has no analogue in our knowledge of the future".⁶ Russell, undoubtedly, feels that this definition is vague as much as its data out of which it is constructed. So, Russell suggests that memory be analysed further.

Russell accepts Bergson's distinction between two sorts of memory: habit-memory and recollection. For instance, sometimes we remember a quotation or recite a poem without being able to remember any specific previous time when we have recited this poem. This is an example of habit-memory and does not necessarily involve knowledge. However, when I try to answer a friend of mine who has asked me what I had for breakfast this morning, my recollection of what I had for breakfast this morning is not a habitual event. This sort of recollection is a form of knowledge, and Russell calls it a true memory.⁷

True memory can be analysed further, according to Russell, into

⁵ Ibid.

⁶ Ibid.

⁷ I will try to answer the question of whether knowledge is reducible to habit or not in my discussion of knowledge.

immediate memory and deferred memory as Professor David Pears calls it in his article "Russell on Memory" read at Indiana University during Russell's Centennial Anniversary in March, 1972. What is involved in an immediate memory is a stimulus of which "we have a sensation; then a gradual transition; and at the end an image."⁸ If we take as an example the striking of the tower clock at Divinity College, we can say that the immediate memory involves the sensations of the strikes and the sensations of the succession of the strikes, and finally their images. Everything involved in the immediate memory "is included with sensation in what is called the specious present"⁹ Deferred memory, on the other hand, "applies only to events sufficiently distant"¹⁰ from the specious present.

What is evident, of course, is that immediate memory confirms our thesis. It is a compound of sensations and images. But what about deferred memory? It seems that when I remember my native country, I do not have any present sensations of the old country; what is involved are images alone. However, this is not so according to Russell's theory of memory. Cases of remembering one's country and similar cases can be considered instances of habitual memory which do not involve knowledge. Remembering one's country, as a case of habit-memory, does not involve images alone, it involves present sensations also. Russell believes that when the memory-images of the country occur in the mind now, they are caused by one of two things: either the sight of a friend, i.e., a present sensation which does not have to be only a friend, or a present

⁸ Ibid. p. 175.

⁹ Ibid. p. 175.

¹⁰ Ibid.

image occurring now in the mind, which itself was produced by a present sensation. Thus, a habit-memory can be constructed out of sensations and images, and the relationship between images can be explained according to the law of association which involves the correlation of present sensations with images of past sensations.

There is one obvious fact about Russell's analysis of habit memory, namely, that he drives his analysis right down to the causes of the present occurrences in the mind, or in other words, Russell reduces his investigation of memory into the contents of the mind and the external stimuli. The present content of the mind is composed of images of past events and of a belief to the effect that those images in the present content of the mind do refer to past occurrences. On the other hand, Russell calls the stimuli which arouse these images and that belief in the present content of the mind, sensations. Therefore, in any act of memory there are three elements involved (i) a stimulus which can be either a sensation or an image associated with another image or other images that are aroused by a present sensation (ii) a memory-image which refers to a past event and (iii) a memory-belief to the effect that the memory-image does, in fact, refer to a past event. The memory belief distinguishes an image in the present content of the mind as a memory-image and differentiates that image from the image, of the same event, occurring either in expectation or in bare assent.

According to Russell, the relationship, between the memory-image and the memory-belief, is occurring now in the content. A memory-image is a memory-image just because we believe it to be referring to the past. Whether the image does in fact refer or represent the past is immaterial

to the analysis of memory; the truth and falsehood of beliefs, strictly speaking, lie "outside our general subject, namely, the analysis of mind."¹¹ According to Russell, the analysis of memory cannot be affected, not only if our beliefs are not true, but also if the world began "five minutes ago"¹² as the skeptics may say. As a matter of fact "the knowledge of the past [is] logically independent of the past"¹³ The knowledge of the past belongs to the content of the mind while the past exists outside the mind, and there is no necessary relationship between the past and the knowledge of the past.

The elements of a true deferred memory are the same as any other sort of memory: a content composed of a memory-belief and memory images and a stimulus. However, the stimulus must be a present sensation and not an image. First, let us take an example where the stimulus is formulated in words. Let us say somebody asks me what I had for breakfast this morning. The question, in this case, causes me to remember what I had for breakfast this morning. However, the understanding of the words in the question involves a habit¹⁴ although the recollection of the items eaten on the breakfast is not a habit. For the phrase "this morning" in the question does not refer to a particular day, it refers to a fixed time-relation, and the understanding of time-relations or time-intervals in general produces the memory of the breakfast. Therefore,

¹¹Ibid. p. 253.

¹²Ibid. p. 160.

¹³Ibid.

¹⁴Ibid. p. 177.

"if we wish to analyze the causation of memory by something not presupposing memory",¹⁵ we have to take another example not involving words.

The second example that Russell takes is a case where someone enters a familiar room -- that is a room where he has been, at least once before. Let us say that there is a picture on the wall which was not there before. Further, let us suppose that this man feels that there is something which has changed, though he does not know what. The man tries to remember what has been changed and finally realizes that "that picture was not on the wall before."¹⁶ What happens in this case, according to Russell, is that

"the other objects in the room are associated, through the former occasion with a blank space of the wall where there is a picture. They call up an image of a blank wall, which clashes with perception of the picture. The image is associated with the belief feeling which we found to be distinctive of memory since it can neither be abolished nor harmonized with perception." 17

The analysis of this instance of a true deferred memory confirms the previous analysis of habit memory and immediate memory. All forms of memory can be analysed into present sensations, present images associated with images of past sensations, plus memory-belief which makes it possible to compare the present images with images of past occurrences and come to the conclusion that "this has changed in comparison with something else."

The conclusion which Russell draws from the analysis of memory is that

"some present feature of the environment is associated

¹⁵ Ibid. p. 178.

¹⁶ Ibid. p. 178.

¹⁷ Ibid.

through past experiences, with something now absent;
 this absent something comes before us as an image,
 and is contrasted with present sensation." 18

The outcome of such a comparison between images and past occurrences and present sensations is a vocal judgement in the form of "this occurred before". We can say, therefore, that Russell's thesis holds even in the case of the analysis of memory.

B. Memory and Images

Russell believes that Hume's principle of characterizing images i.e., ideas, as being "copies" derived from and correspondent to simple impressions, i.e., sensations, is a principle to which everyone "would agree that it has a broad measure of truth".¹⁹ However, the difficulty, according to Russell, is not in considering images as exact or inexact copies of sensations but in the possibility of such a comparison. For the sensation, which an image is said to copy, is in the past; while the image itself is in the present. That is, the event or sensation is part of the external world while the image is part of the content of the mind. In other words, sensations belong to the "body" while the images belong to the "biography" or mind in Russell's technical terms.

"How, then, are we to find any way of comparing present image and past sensation?"²⁰ That the present image refers to the past sensation is explained through the fact that there is a memory-belief in the present content of memory. However, the point to be explained is the way in which

¹⁸ Ibid.

¹⁹ Ibid. p. 159.

²⁰ Ibid. p. 159.

the past sensation and present image are compared. Nevertheless, the understanding of such a comparison cannot be achieved without first understanding the characteristics of images and the characteristics of sensations which are being compared.

(a) The Characteristics of Images in Memory

Russell believes that images

"have two characteristics by which we can arrange them in two series, of which one corresponds to the more or less remote period in the past to which they refer, and the other to our greater or less confidence in their accuracy." 21

Let us take up the second point, namely accuracy, first. Russell claims that when we say that an image is a copy of some sensation, our confidence in such an image

"must, in fundamental cases, be based upon a characteristic of the image itself, since we cannot evoke the past bodily and compare it with the present image." 22

The required characteristic is vagueness, according to Hume. However, Russell objects to the criterion of vagueness because in some cases we do distrust our images even if they are not vague. For example, "under the influence of fatigue we may see a friend's face vividly and clearly, but horribly distorted."²³ According to Russell, we choose not to trust an image whether it is vague or vivid because we feel or sometimes know, that is recognize, that an image is not familiar and consequently not representative of the object it refers to. In the case of fatigue we get

²¹ Ibid. p. 161.

²² Ibid. p. 161.

²³ Ibid.

a distorted image of our friend, and naturally we ignore that image and choose to evoke a more familiar image of our friend taken under more reliable circumstances.

Accordingly, Russell suggests that the characteristic which distinguishes images is "the feeling of familiarity that accompanies them."²⁴ Normally, the feeling of familiarity is aroused whenever we are in places "we have often been before -- at home, or in well-known streets".²⁵ However, the feeling of familiarity does not imply knowledge or recollection of any previous occasion on which we have been in a certain place. Sometimes, the feeling of familiarity is not reliable and sometimes it does not attach itself to any definite object. Nevertheless, when the feeling of familiarity occurs without being attached to a definite object, a feeling of discomfort sets in on the individual who has the feeling of familiarity and leads him to search the environment until he (the individual) finds the appropriate object.

Images have another characteristic, namely, the reference to the past. Russell says that this characteristic makes us regard images not only as familiar but also as "referring to more or less remote portions of the past".²⁶ This characteristic of "referring" is basically, a feeling which is analysed further into a "feeling of pastness"²⁷ and a feeling of "context". The feeling of pastness is very conspicuous in

²⁴Ibid. p. 161.

²⁵Ibid. p. 168.

²⁶Ibid. p. 162.

²⁷Ibid.

cases of immediate memory when images refer to the immediate past sensations. Also, an immediate memory has a feeling of a greater context than "a more distant one"²⁸ i.e., a deferred memory.

The basic difference between the feeling of familiarity and the feeling of reference is "that the sense of familiarity is not cognitive" while the sense of reference to the past is a "belief or a judgement".²⁹ However, this cognitive element in the sense of reference is not to be considered knowledge because it recognizes a thing either as "such-and-such", like the recognition of dogs and cats, or as "such-and-such has existed before".³⁰

(b) The Characteristics of Sensations in Memory

True memory results in a judgement such as "this occurred". Russell believes that this judgement is vague, "but not false".³¹ In general, a vague judgement is considered vague because the words which constitute such a judgement are vague. The reason why words are vague in such a judgement is because they have to refer to more than one thing at the same time. For instance,

"the word 'this' in such a judgement [as this occurred or this existed] is a vague word, equally applicable to present memory-image and to past occurrence which is its prototype ... A word is vague when it is in fact applicable to a number of different objects because, in virtue of some common property they have not appeared, to the person using the word, to be distinct." ³²

²⁸ Ibid.

²⁹ Ibid. p. 170.

³⁰ Ibid. This is not an exact quote, though some part of it is.

³¹ Ibid. p. 180.

³² Ibid. p. 184.

Similarly, the word "occurred", in the judgement "this occurred", is vague because it is used to refer to the image which is, "in one sense, occurring now",³³ and to the past event which occurred on a previous occasion. The word "occur" is used to denote the occurrence of both the image and the sensation, however, it should not receive the same meaning in both cases. In order to feel the difference between the two meanings of "occur", we have to ask two distinct questions (1) "what causes us to say that a thing occurs? (2) what are we feeling when we say this?"³⁴ Russell believes that the answers to these questions are very different depending on which case we have in mind. If we have the past object which occurred, then what causes us to say that so and so occurred is the "reality" of what occurred and the feeling, we give to it, is a feeling of reality. Russell says that "a thing which 'feels real' inspires us with hopes or fears, expectations or curiosities -- which are wholly absent when a thing feels imaginary".³⁵ However, if we have the case of the occurrence of the image, then what causes us to say that so and so occurs is not the reality but what is "imaginary", and the feeling we give to it is different from the feeling we give to reality.

Now, when we compare present images with past sensations we are capable of doing so on two grounds. The first ground is that images have certain characteristics of the feelings of familiarity and pastness, and the second ground is that the feeling we attach to a present image is

³³Ibid. p. 185.

³⁴Ibid. p. 185.

³⁵Ibid. pp. 185-6.

different from the feeling we give to the past sensation. Therefore, in the memory judgement "this occurred", the words are loose and vague so that they permit of such a comparison between images and sensations. Therefore, the possibility of comparing images and past occurrences in memory is due to the different feelings which are attached to them.

C. Knowledge

Vague memory is not the only sort of memory. Russell mentions two other sorts: precise memory and accurate memory. A memory is vague, like any word which is vague, when it is appropriate for many different occurrences, like "I met a man".

"A memory is 'precise' when the occurrences that would verify it are narrowly circumscribed -- for instance, 'I met Jones' --- A memory is accurate when it is both precise and true, i.e., in the above instance it was Jones I met." 36

According to Russell, accurate memory is an essential part of knowledge. A person's response is not said to display knowledge unless it is accurate and appropriate. Russell's theory of knowledge, as expressed in The Analysis of Mind is essentially behaviouristic. However, the term behaviourism in this case needs some elaboration. It is true that Russell believes in the existence of images and in introspection as a special way of knowing images and that he believes in the existence of beliefs. That is, when man is viewed from inside, images and beliefs play an important role. But "when we are viewing a man from the outside, it is not his beliefs, but his bodily movements, that we can observe".³⁷

³⁶ Ibid. p. 182.

³⁷ Ibid. p. 255.

Therefore, when we are viewing man from outside, a man's knowledge should be regarded as "actually consisting in what he says and does. That is to say, we will construct, as far as possible, a purely behaviouristic account of truth and falsehood".³⁸

However, Russell does not consider himself, as far as the theory of knowledge goes, a complete behaviourist. He believes that the accuracy of behaviour is very basic, but he also considers it insufficient by itself to account for knowledge. A machine can be accurate that is

- "(a) It gives different responses to stimuli which differ in relevant ways, [and]
- (b) It gives the same response to stimuli which do not differ in relevant ways." 39

Nevertheless, accurateness is not sufficient unless reinforced by appropriateness to a purpose. For instance, let us

"suppose two persons, of whom one believed whatever the other disbelieved. So far as accuracy and sensitive-ness of response are concerned, there would be nothing to choose between these two persons --. This illustrates that accuracy of response to stimulus does not alone show knowledge, but must be reinforced by appropriateness, i.e., suitability for realizing one's purpose." 40

Russell insists that accuracy be reinforced by appropriateness of a purpose because he believes that knowledge is not reducible to habit. A human being cannot be as accurate as a machine, however the machine is not said to know because it does not realize what its purpose is.*

³⁸ Ibid. p. 255.

³⁹ Ibid. p. 256.

⁴⁰ Ibid. pp. 260-61.

* It should be noticed that Russell's purpose is not to investigate whether machines can know or not, his immediate aim is to show that accuracy by itself is not sufficient to explain knowledge.

In order that a man be said to know, he must exhibit in his behaviour two characteristics: accuracy and appropriateness. But since "complete accuracy is a theoretical ideal not practically attainable", we should be content with the fact that "all thinking is vague to some extent".⁴²

⁴¹Ibid. p. 180.

⁴²Ibid. p. 180.

CHAPTER SEVEN

RUSSELL'S MINOR THESIS

The Analysis of Belief

The analysis of belief gives us an additional example which supports Russell's thesis of the possibility of constructing mental phenomena out of images and sensations and their relationships.

Belief, however, is a very complex phenomenon whose applicability to the above thesis requires some explanation. Every belief according to Russell is composed of three elements (i) the believing or the act of belief, (ii) the content of the belief or what is believed, and (iii) the objective reference of the belief, or the actual occurrence to which the content of the belief refers.

In order to make these elements of a belief more obvious, I will call to mind my treatment of memory. There, we distinguished among the memory-image and the past occurrence and the memory-belief in virtue of which the memory-image is said to refer, more technically "to mean", to the past occurrence. We have said also that the judgement, "this occurred", made as a product of remembering, is vague because it appropriates two different occurrences at once: it refers to a present image and to a past occurrence which the image "means".

Similarly, in belief, the occurrences in actual reality are called the objectives or the objective references, the present image of the objective is called content of the belief. However, there is an

additional element in belief which is not present in memory, namely, the act of belief or believing. In belief, the content is capable of being believed in different ways. In order to denote these different ways of believing, Russell thinks that it is necessary to give them different names. Russell mentions three different ways of believing: memory-belief feelings, expectation feelings, and bare assent feelings.

The three elements: believing, the content, and the objective, make up what is called belief. The objective reference is what makes the belief true or false. The objective, then, can be called "a fact". As a fact, the objective, is part of the constituents of the world, is public as much as the world, and is the criterion through which we are capable of knowing whether the other parts of belief are true or not.

Before our analysis goes any further, we can see now that belief, with all of its parts, affirms Russell's thesis since the objective involves sensations and the other constituents involve images and relationships between images and sensations.

However, since there are different kinds of believing, it is essential to know first what they are and second whether each one of them can be analysed into images and sensations.

A. The Content of Beliefs

Russell begins the analysis of the content of beliefs by giving some notes. The first observation that Russell makes is that the content of belief "is always complex".¹ So, whenever we believe something, the present content of that belief is complex. The complexity in a content

¹Bertrand Russell. The Analysis of Mind. p. 235.

can be explained through the uses of language that express the belief. "We believe that ...", Russell claims, is the right phrase to use in expressing the content of belief. Instead, when we use the phrase "we believe in ...," we are concealing the complexity of the content because the phrase "we believe in ..." is not complete. In order to be complete, it should have the form of "we believe in the existence of ..." which is equivalent to "we believe that ...".

The second observation which Russell makes is that

"the content of a belief involves not merely a plurality of constituents, but definite relations between them; it is not determinate when its constituents are given." ²

The third point is that the content of a belief may "consist of words only, or images only, or of a mixture of the two, or of either or both together with one or more sensations".³ According to Russell this points out to the rich possibilities with which the contents of our beliefs can be studied or represented. However, for the sake of simplicity, Russell limits his study of the content to two cases only: "(a) when the content consists wholly of images, (b) when it consists wholly of words".⁴

In order to be able to analyse the content of belief, Russell takes some examples. The example which Russell suggests is "some familiar room" in which the

"window may be to the left of the door. Without any intrusion of words, you may believe in the correctness of your image. You, then, have a belief, consisting,

²Ibid. p. 236.

³Ibid. p. 236.

⁴Ibid. p. 239.

wholly of images which becomes, when put into words,
'the window is to the left of the door'." 5

When expressed in words, the content of a belief is said to be a proposition. A proposition, as Russell defines it, is "a series of words (or sometimes a single word) expressing the kind of thing that can be asserted or denied".⁶ For instance, if the objective reference of the proposition or the content of the belief "the window is to the left of the door" is the window is to the left of the door, then that proposition is true, otherwise it is false. However, it should be noted that not every series of words is a proposition; "only such series of words as have 'meaning' or in our phraseology, 'objective reference'".⁷

The word proposition can be used to cover images too. Russell says that propositions cover "the contents of beliefs consisting of images".⁸ If such an extension of the word proposition is possible, then a proposition and in general, propositions can be defined as the "contents of actual and possible beliefs and we may say that it is propositions that are true or false".⁹

B. The Act of Belief or Believing

Russell thinks

"that there are at least three kinds of belief, namely, memory, expectation, and bare assent. Each of these I

⁵ Ibid. p. 239.

⁶ Ibid. p. 241.

⁷ Ibid. p. 241.

⁸ Ibid.

⁹ Ibid.

regard as constituted by a certain feeling or complex sensations, attached to the content believed". 10

The different kinds of belief can be explained through an example. Let us take the proposition "it was raining" whose objective reference is the fact of rain. Let us suppose, further, that the proposition is entertained as an image. This image-proposition of the rain will consist of images of

"the visual appearances of rain, the feeling of wetness, the patterns of drops interrelated, roughly, as the sensations would be if it were raining". 11

According to Russell, this image-proposition of the rain can be believed in at least three different ways, first as in memory "it was raining", second as in expectation "it will rain", or third as in bare assent "rain occurs". The image of rain is common while the believing is different. In other words the content of the belief, i.e., the image-proposition does not change in the three forms of belief, what changes are the feelings or the ways in which we believe the fixed content. In memory, the believing is called a memory-belief feeling, in expectation an expectation feeling, and in bare assent, a bare assent feeling.

These three kinds of belief feelings are different from each other. For instance, bare assent does not require a personal experience being attached to the proposition. For example, when I remember what I had for breakfast today, I recollect what I have already done. However, when I remember that "Caesar crossed the Rubicon", I assent to the

¹⁰ Ibid. p. 250.

¹¹ Ibid. p. 250.

proposition on the assumption that it "means" a fact such that an occurrence had taken place in history. Similarly, my expectation of the rain is different from the memory of the rain not because the images are different, but because the feelings associated with these similar images are different.

Our analysis of belief has led us, then, to distinguish three sorts of beliefs: memory-belief, expectation, and bare assent. Russell believes that in each case of belief, it is possible to analyse it into images and sensations and their relationships. However, Russell does not analyse every form of believing; he chooses only the case of bare assent on the hope that the substitution of bare assent in the analysis is very easy. In the case of bare assent

- "(a) we have a proposition, consisting of interrelated images, and possibly partly of sensations;
- (b) we have the feeling of assent, which is presumably a complex sensation demanding analysis;
- (c) we have a relation, actually subsisting, between the assent and the proposition in question of what is assented to".¹²

C. The Relationship Between the Content and the Objective Reference in Belief

Since propositions "mean" facts, it is essential to understand how it is possible that propositions mean those facts. The discussion of "meaning", however, should be divided into two parts (i) how words "mean" and (ii) how images "mean" because a proposition can be expressed in two ways--images and words.

(a) How words mean

Russell's analysis of words is confined to the spoken word. So,

¹²Ibid. p. 251.

apart from "meaning" or its relationship to an objective reference, a word is a system of aspects or sensations as much as its objective reference is.¹³ Russell narrows down the aspects of the spoken word to two only, namely, that of the speaker and that of the hearer.

"From the point of view of the speaker, a single instance of the use of a word consists of a certain set of movements in the throat and mouth, combined with breath. From the point of view of the hearer, a single instance of the use of a word consists of a certain series of sounds, each being approximately represented by a single letter in writing..."¹⁴

Moreover, no two people pronounce the same written word exactly the same. For instance, the word "hall" receives different pronunciations that shadow between "hole" and "whole", and similarly with hearing the word "hall". Accordingly, a single word should not be considered, by any means, simple.

However, these differences, in pronouncing and hearing words, do not hamper us from using them to refer to the same objective. Due to the objective references of words, sometimes, we do not pay attention to these differences. The mere fact that words have a certain relationship to objective reference, that is the fact that words have meaning, "is what distinguishes a word from other sets of similar movements".¹⁵ This relationship between a word and a fact is by no means conventional, according Russell, because "we can hardly suppose a parliament of hitherto speechless elders meeting together and agreeing to call a cow a cow and a wolf

¹³The objective reference is a physical object or a complex of physical objects, in any case, the objective reference is a logical construction, in fact, it is a system of appearances.

¹⁴Ibid. p. 188.

¹⁵Ibid. p. 189.

a wolf".¹⁶ Russell believes that the association of a word with its "meaning" must be supposed to have "grown up by some natural process, though at present the nature of the process is unknown".¹⁷

Now, we can say that according to Russell, words "mean" because they have a certain relationship to facts. The process whereby words have become to have such a relationship is a natural process though the nature of such a process is not known yet. However, there is another question namely, what do words mean? The answer to this question depends on (a) what words are in question and (b) how these words are used. Generally speaking, words can mean either facts or images of facts depending on the situation in which the word is being used.

(a) Russell believes that there are three kinds of words, each kind of words is classified according to its meaning and not according to its grammatical structure. There are first "general names" such as "white", "raining", "eating", "walking", and "man". A general name may refer either to a process in the world such as "man" and "walking" or to a static feature of the world such as "red", "white", "circular". The process to which a general name refers is basically an event constructed out of sensations. A man, a physical object, walking, eating, all of these general names are logical constructions for certain particular series of sensations causally connected together.

The second kind of words are called "proper names". "Napoleon", "smith", "Peter", etc., are instances of proper names. A proper name,

¹⁶ Ibid. p. 190.

¹⁷ Ibid. p. 190.

such as Napoleon, refers to a particular causal unit, and a causal unit is a system of appearances connected together. Therefore, there is no basic difference between general names and proper names since a general name refers to a "whole class of such collections of particulars as have proper names".¹⁸

The third kind of words has a meaning which "differs fundamentally from the meaning" of the other two kinds of words. This third kind of word includes words like "above", "before", and "in" etc., which are very important in logic but have no significant use in the study of psychology. Russell calls this kind syncategorematic words, that is words which receive their meaning from their contexts.

(b) Words, according to Russell, can be used in two ways: demonstratively or narratively. We use a word demonstratively when we intend primarily to influence the behaviour of our hearer, for example, if we are walking with a friend along a road and suddenly notice a car coming towards us, we jump aside telling our friend to watch out. The words in this case, are used to influence the behaviour of our friend, once he understands the meaning of the words he leaps aside too.

On the other hand, we use words narratively not with the intention of influencing the behaviour of our friend, but to transmit to him some images or ideas. For example, we can use the same words, which we used when telling our friend (x) to watch out for the car, to narrate the incident to another friend (y). Our intention in the narration of the story is not to influence the behaviour of our friend (y), but to convey

¹⁸ Ibid. p. 196.

to him what had happened and let him "imagine" the incident.

Now on the basis of (a) and (b), developed above, we can say that

"words used demonstratively describe and are intended to lead to sensations, while the same words used in narrative, describe and are intended to lead to images".¹⁹

In other words, when used demonstratively, words mean objects and sensations, but when the same words are used narratively, they mean images.

(b) How images mean

"Images as well as words may be said to have 'meaning'",²⁰ says Russell. The meaning of images can be determined in two ways, either as the relationship between the image and its prototype or as the relationship between the image and its cause since an image can be caused either by an object or by other images. In the first case, the meaning of the image is vague since "there is not one prototype, but a number, none of which is copied exactly".²¹ For example, when we

"call up an image of a dog, we are very likely to have a vague image, which is not representative of some one special dog, but of dogs in general".²²

However, the definition of the meaning of images through their causal efficacy, is not vague but precise since an image, in this case "is an image 'of' some definite object".²³ For example, an image of

¹⁹ Ibid. p. 202.

²⁰ Ibid. p. 207.

²¹ Ibid. p. 207.

²² Ibid. p. 207.

²³ Ibid. p. 208.

St. Paul's will have some of the effects which the object St. Paul would normally have.

(c) The relationship between images and words

Russell believes that

"when we understand a word, there is a reciprocal association between it and the images of what it means. Images may cause us to use words which mean them and these words, heard or read, may in turn, cause the appropriate images". 24

The relationship between words and images is expressed in a law of association. If a person

"has frequently experienced A and B in close temporal contiguity, an association will be established, so that A, or an image of A tends to cause an image of B". 25

However, it is not necessary to suppose that the association between words and images is possible all the time. It is undoubtedly true at the beginning, but in time words would come "to produce directly effects which would have been produced by the images with which they were associated".²⁶ Whenever, words have direct effects, they can be explained through the law of telescoped processes which states that "if A causes B and B causes C, it will happen in time that A will cause C directly, without the intermediary of B".²⁷

The implication of the discussion of images and words in connection with belief is that the content of the belief can be expressed either in

²⁴Ibid. p. 206.

²⁵Ibid. p. 304.

²⁶Ibid. p. 206.

²⁷Ibid.

words or in images. Russell tends to believe that the formulation of the content of the belief in images comes before the formulation of the same content in words. However, according to Russell, this is true only at a very low stage of thinking. According to the laws of association and the laws of telescoped processes, words come to be used alone in abstract thinking such as high speculations or abstract theories of science. For instance, the theories of relativity can be explained only in words first because words are precise and second because images become very vague.

However, it does not follow from the fact that we use only words at a certain stage of abstract thinking, that thinking per se is "talking to oneself" as Watson believes. According to Russell, thinking occurs both in images and in words. At a certain stage, images become very vague to be used in thinking and instead we use only words. Nevertheless, whether we think in images or in words or in both of them, thinking reflects a very fundamental characteristic not only of the theory of knowledge in particular, but also a very fundamental characteristic of physics in general, namely, subjectivity or relativity. The behaviourists deny any validity for subjectivity, they rule it out as unscientific. Russell, on the contrary, believes that subjectivity, or a point of view, is fundamental and necessary in the theory of knowledge if we are going to accept modern physics.

III

DEVELOPMENT OF RUSSELL'S MAJOR THESIS

CHAPTER EIGHT

RUSSELL'S MAJOR THESIS

I think enough work has been done in order to show that my formulation of Russell's minor thesis is in harmony with and essentially the same as the thesis which Russell has developed in The Analysis of Mind. It remains essential, however, to expound Russell's major thesis, namely, that all mental phenomena as well as physical phenomena can be constructed out of one and the same stuff which is neither mental nor material, but more primitive than both of them.

As I said in my introduction, this major thesis cannot receive a full elucidation because we have not done enough work on the analysis of matter, though we have given the basic features of a piece of matter which are in harmony with The Analysis of Mind. However, the main reason I am dealing with this thesis, despite the insufficiency of our analysis of matter, is to show how Russell is able to maintain his support for the theory of evolution and the hypothesis of continuity without opening himself to the charges which he levels on other theories. As a result of his theory of neutral monism, Russell is able to criticize and discredit other theories of the nature of man on the assumption that these theories are not scientific enough as modern physics demands.

Eventually, in this chapter, I will try to show (i) some views on the nature of man and how Russell criticizes them and (ii) how Russell understands man on the light of the scientific discoveries of modern physics.

A. Some Views on the Nature of Man

(a) The theory that distinguishes man from animals by his consciousness

There are some philosophers, in particular Brentano and Meinong, who believe that the essence of what is mental is something quite peculiar called consciousness. Brentano, for instance, claims that

"every psychical phenomenon is characterized by what the scholastics of the Middle Ages called the intentional (also the mental) inexistence of an object ... This inexistence is exclusively peculiar to psychical phenomena. No physical phenomenon shows anything similar. And so we can define psychical phenomena by saying that they are phenomena which intentionally contain an object in themselves". 1

Meinong develops the above thesis of intentionality of psychic phenomena in such a manner as to say that in every thought,

"there are three elements involved ... the act, the content, and the object. The act is the same in two cases of the same kind of consciousness ... But the content of my thought ... is different when I think of Smith and when I think of Brown ... The object may be something past or future ... physical, not mental ... imaginary ... or it may even be something self-contradictory". 2

Russell combats this view of consciousness and man because it is "incapable of maintaining itself either against an analytic scrutiny or against a host of facts in psycho-analysis and animal psychology".³ In other words, Russell criticizes this view on the basis of scientific discoveries and on the basis of his own method, the logical-analytical method.

If we take the last point of Russell's criticism first, we can

¹Bertrand Russell. The Analysis of Mind. p. 15.

²Ibid. p. 16.

³Ibid. p. 15.

see that "the act" which Meinong postulates in thought is quite "fictitious"⁴ and therefore unnecessary. According to Russell the view which postulates the unnecessary act assumes that the act is "the act of a person"⁵, but the person is a logical construction in much the same way as the physical object. What makes up a person, for Russell, is not a certain unchangeable entity or a quality such as a consciousness, but rather a mnemical causal relationship between different experiences. To suppose, therefore, that there is an act which pertains to a person is quite unnecessary since there is no such thing as a person. Moreover, it is empirically impossible "to discover anything corresponding to the supposed act".⁶

Russell is also dissatisfied with Meinong's theory in connection with the "content" of thought. For instance, the intentional reference of the content to its object, in one act of thought, is not "the simple direct essential thing that Brentano and Meinong represent it as being".⁷ According to Russell, the content, in the mind, is a part of the belief; and such a content "means" or refers to an object which exists outside the mind. Therefore, the object of thought does not exist in the mind.

Moreover, the connection or relationship between the content of the thought and the object of the thought is not in the mind and is not known intuitively. For Russell, the relationship between the content and

⁴Ibid. p. 17.

⁵Ibid. p. 18.

⁶Ibid. p. 18.

⁷Ibid. p. 18.

its object is an external relationship and is known derivatively. The relationship between the content and its object is to be discovered; and we are not said to know it unless we use such a relationship or behave when we hear it, accurately and appropriately.

However, Russell agrees with Brentano and Meinong that consciousness is always consciousness "of"⁸... Nevertheless, Russell disagrees with them (a) on the nature of consciousness and (b) on the meaning of the phrase "consciousness of". According to Russell both Brentano and Meinong distinguish consciousness as the basic feature of mental life, i.e., consciousness is the essence of mental life, but "consciousness is far too complex and accidental to be taken as the fundamental characteristic of mind".⁹ Furthermore, the phrase "consciousness of" does not mean something mysterious such as the relationship between the content and the object of thought which exist in the mind, rather "consciousness of" is to be considered equivalent to the relationship called "meaning". Russell says that "consciousness should be defined in terms of that relation of an image or a word to an object".¹⁰ On this view, then, Russell considers consciousness as a relationship quite similar to meaning, and the truth or falsity in meaning as well as in consciousness is to be determined according to behavioristic and external criteria and not on intuitive criteria.

The other criticisms which Russell levels against Brentano's view

⁸Ibid. p. 288.

⁹Ibid. p. 292.

¹⁰Ibid. p. 288.

of man are derived from recent developments in psychology. For instance, Russell claims that William James has given ample evidence that psychology can do perfectly well without postulating any mental substances such as consciousness, though for James consciousness remains very useful for psychology as a word which stands for a function. John Watson also has dispensed with mental substances completely and suggested another subject-matter of scientific psychology such as the behaviour of the organisms. Freud and his psycho-analytic school have made it clear that psychic phenomena as characterized by intuitive consciousness are not so conscious and so infallible as they appear. In fact, most of our desires, according to Freudians, are unconscious and once we are made conscious of them, they tend to be shocking.

However, it does not follow from the fact that Russell has used these evidences against Brentano, that Russell also has accepted these criticisms blindly, without any objections to them. It remains true nevertheless, that Russell agrees with James, Watson, and Freud in their rejection of consciousness as a substance in their claims that consciousness is not infallible or absolute as Brentano makes it to be.

As I said before, Russell disagrees with Watson's claim that psychology is the science of the behavior, and he disagrees too with James' view of the stream of consciousness. Russell objects also to Freud's analysis of the "unconscious" as being too mythical. "Freud and his followers" Russell says "though they have demonstrated beyond dispute the immense importance of unconscious desires in determining our actions and beliefs, have not attempted the task of telling us what an unconscious desire actually is, and have thus invested their doctrine with an air of

mystery and mythology which forms a large part of its popular attractiveness".¹¹ In such a mythical view

"the unconscious becomes a sort of underground prisoner, living in a dungeon, breaking in at long intervals upon our daylight respectability with dark groans and maledictions and strange atavistic lusts".¹²

Eventitly, the truth is not so picturesque as the Freudians claim. For Russell, "desire", in fact, is no more than a tendency to a certain behaviour quite similar to and quite fictitious as "force" in dynamics. Consequently, Russell defines desire as "a causal law of our behaviour, namely, that we remain restlessly active until a certain state of affairs is realized, when we achieve a temporary equilibrium".¹³ For example, if we are hungry, we become restless until we have satisfied our hunger.

According to Russell, our desires follow a general law, namely,

"that a mental occurrence of any kind-sensation, image, belief or emotions - may be a cause of a series of actions, continuing, unless interrupted, until some more or less definite state of affairs is realized. Such a series of actions we call a 'behaviour-cycle'."

The cycle is initiated by a state of discomfort and satisfied by what may be called the purpose of the cycle. If such a satisfaction occurs, then the cycle terminates with pleasure if no satisfaction results, the cycle terminates with pain. Both pleasure and pain are to be considered as properties belonging to, and not ends of, the behaviour-cycle. In Russell's

¹¹Ibid. p. 37.

¹²Ibid. pp. 37-38.

¹³Ibid. p. 38.

view, than,

"a desire is called 'conscious' when it is accompanied by a true belief as to the state of affairs that will bring quiescence; otherwise, it is called 'unconscious'".¹⁴

It is possible, for Russell, to substitute the law of behaviour-cycle as an explanation of desire instead of the mythical Freudian view of desire. The result of such a substitution is an evidence that one can criticise Brentano's view of consciousness as being mythical without opening himself to a similar charge as the Freudians do.

Now, since Brentano's view of man is objectionable on the grounds of analysis and psychological observations, then there is no reason (1) that it should be accepted and (2) that it be maintained, as Brentano does, that there is a fundamental difference between man and animal, or between psychology and physics. On the contrary, Russell believes that from "the protozoa to man there is nowhere a very wide gap either in structure or in behaviour".¹⁵

(b) The theory that distinguishes man from animals by his abstract ideas

There is another philosophical view that agrees with the previous view that there is a basic difference between man and animal, but for a different reason. Russell says that "from Plato onward the 'idea' has played a great role in the systems of idealizing philosophers".¹⁶ According to those philosophers

"the human mind ... is capable of framing abstract ideas, and of conducting non-sensational thought. In this it is

¹⁴ Ibid. p. 76.

¹⁵ Ibid. p. 41.

¹⁶ Ibid. p. 213.

supposed to differ from the mind of animals." 17

That language has "words of which the meaning is abstract" and that "we can use these words intelligently" are obvious facts which no two people quarrel about. The problem, however, is "what must be assumed or inferred ... in the way of mental content to account for the intelligent use of abstract words?"¹⁸

Russell believes that the answer is very clear if it is taken from logic namely

"absolutely nothing in the way of abstract mental content is inferable from the mere fact that we can use intelligently words of which the meaning is abstract". 19

The reason that this answer is clear and easy is due to the fact that

"a sufficiently ingenious person could manufacture a machine moved by olfactory stimuli which, whenever a dog appears in its neighbourhood, would say, 'there is a dog'; and when a cat appeared would throw stones at it". 20

On the basis of this logical answer, Russell draws two conclusions:

- "(1) correct speech does not of itself afford any better evidence of mental content than the performance of any other set of biologically useful movements, such as those of flight or combat.
- (2) All that is inferable from language is that two instances of a universal, even when they differ very greatly, may cause the utterance of two instances of the same word which only differ very slightly." 21

¹⁷Ibid.

¹⁸Ibid.

¹⁹Ibid. p. 213.

²⁰Ibid.

²¹Ibid. p. 214.

Therefore, according to Russell, language does not contain anything that may make man basically different from the animals. Abstract ideas, universals, and proper names can be explained within the framework of a language. In fact, universals are general names, that is a particular kind of words. General names denote a "class of such collections of particulars as have proper names".* A proper name denotes a system of appearances connected causally and treated by the physicist as a physical object. Now, since the appearances are changing constantly, it follows that no physical object is the same object at two instances. However, we give one name for the supposedly same physical object at the two instances. The names, i.e., spoken words, according to Russell, change also, but their changes are much less than the changes occurring in the instances of the object. In virtue of this relatively slight change in words, we tend to use words to denote objects which change constantly. Universals, then, are words used to denote a class of objects that is a class of series of appearances.

There are some people, like Meinong, who consider universals as objects of thought "of" which we are conscious. Russell rejects this view of consciousness and considers the objects of which we are conscious of as existing outside the mind. So, if "consciousness" is equivalent to "meaning", and if a word means an object or if an image means an object, then that object must be external to the content of the mind. Now, if the word is abstract and it means a universal, then the universal, as an object, must exist outside the content of the mind.

*The quote is given before while speaking of words.

That this is Russell's view in connection with the universals can be seen in many factors. First, Russell accepts James' differentiation between images and sensations especially in connection with their effects namely, a mental fire has different effects from a physical fire. According to James and Russell both "fires" are objects: the mental fire belongs to a mental world and the physical fire belongs to the physical world; and, according to James and Russell these two worlds exist and are made up of the same stuff. However, Russell differs from James in viewing the nature of the stuff of these two worlds. For James it is "pure experience", while to Russell it is a neutral stuff.

Another factor which shows that Russell explicitly believes that universals are objects of thought is this. Russell says that he thinks

"that a logical argument could be produced to show that universals are part of the structure of the world, but they are an inferred part, not part of our data". 22

The data of the world are sensations which the physicists classify as causal units. However, these data, i.e., sensations give rise to the images in our minds. With the association of images with objects and images with other images, and with the influence of past experience, images come to have effects as much as their objects do. Now, when an image comes to have the effects which its object normally has, then it is said that the image plays the function of a general idea or a universal.²³ So, in so far as images can have effects they are to be considered a part of the world like objects which can have the same effects. However,

²²Ibid. p. 228.

²³Ibid. p. 208.

since images are produced by sensations and sensations are the actual data of the world, then images should be considered in comparison with sensations, as an inferred part of the world.

Now, if general ideas or universals are images that can produce certain effects, then general ideas belong to the psychological causal law. And since Russell does not believe that there is a fundamental difference between the psychological causal laws and the physical causal laws, then there is no reason to suppose that man is basically different from the animals as the "idealizing philosophers" claim.

B. Russell's View of Man

We have had an opportunity to see that Russell accepts the theory of evolution, and consequently he considers man to have "developed out of the animals, and there is no serious gap between him and the amoeba".²⁴ This fact according to Russell has been misunderstood long enough. Its misunderstanding resulted in a misunderstanding of the nature of mind. However, one can attribute the cause of such a misunderstanding to further difficulties concerning "the philosophy of matter".²⁵ Thus, the difficulties in the philosophy of mind can disappear once we can have "a right philosophy of matter".²⁶

In our discussion of the definition of a piece of matter, we have said that the physical object is a logical construction. The constituents of an object form a system of appearances or aspects. Those aspects have

²⁴ Ibid. p. 40.

²⁵ Ibid. p. 307.

²⁶ Ibid. p. 307.

two places, one is the place where the appearances appear and the other is the place to which these sensations* appear. If the other place is a brain, then we will have perceptions which are distinguished in two respects (a) subjectivity and (b) mnemonic experience which involves images. However, if the other place is a photographic plate, the result is only subjectivity without any mnemonic effect.

Now, if we suppose further that there are two observers, one is a psychologist and the other one is a physicist, then we will have different stratifications of the same original data. The physicist, for instance, will be interested in the sensations as they appear in one place. The place where the appearances are, is called a perspective. On the other hand, the psychologist will be interested in the particular sensations as they are perceived by the brain or deflected by the photographic plate. However, since sensations, when perceived by a brain, have certain consequences, that is sensations produce images, then the psychologist will have some more data to consider which are of no interest to the physicist. This implies that the data which the physicist works with is of interest to the psychologist also. Therefore the psychologist has two kinds of data, namely, sensations and images, while the physicist has only one kind of data, namely, sensations.

Therefore, psychology and physics do not have different subject-matters. The "stuff" with which both of them work is the same, namely, sensations. Here it should be mentioned that sometimes Russell uses different words to describe the original stuff such as sensations, appear-

*Appearances and sensations, sometimes, are used interchangeably.

ances, events. However, whichever word is used, it should be different from either the "material" stuff or the "mental" stuff because it does not come under the investigation of either "physics" or "psychology" which study the material and the mental worlds respectively.*

Moreover, both psychology and physics work with "collections" or "series of" the original stuff. For instance, when sensations are viewed as a series of appearances connected together in one perspective, then the result is a causal unit considered, by the physicist, as a physical object or a body. But when these same sensations are ordered as they appear in a private space, i.e., a brain, then they are considered as a biography which has subjectivity and mnemic causation.

Now, if my interpretation is right, so far, then, we can see what Russell means by the thesis "neutral monism". He says that

"the stuff of which the world of our experience is made of is composed, in my belief, neither of mind or of matter, but of something more primitive than either. Both mind and matter seem to be composite, and the stuff of which they are compounded lies in a sense between the two, in a sense above them both, like a common ancestor." 27

So far, in this quotation, Russell does not specify what that neutral stuff is. However, it seems probable that he is pointing to sensations.

Nevertheless, we do not have to guess what the neutral stuff is since sometimes Russell explicitly gives it a name. He says that

"my own belief ... is that James is right in rejecting consciousness as an entity, and that the American

* We should have studied the implications and the differences of Russell's usages of different theories to express the theory of neutral monism, if it were my main thesis.

²⁷ Ibid. pp. 10-11.

realists are partly right, though not wholly, in considering that both mind and matter are composed of a neutral stuff which, in isolation, is neither mental nor material. I should admit this view as regards sensations: what is heard or seen belongs equally to psychology and to physics." 28

However, to say that sensations are neutral, or the stuff of the world is neutral does not necessarily mean that the laws according to which the physicist orders his data and the laws according to which the psychologist classifies his data are identical or reducible to each other. According to Russell, presently the laws of physics and the laws of psychology are not identical, but this present state does not rule out the possibility that if ever "our scientific knowledge" becomes adequate -- "which it neither is nor is likely to become", then it

"would exhibit the laws of correlation of the particular constituting a momentary condition of a material unit, and would state the causal laws of the world in terms of these particulars, not in terms of matter. Causal laws so stated would, I believe, be applicable to psychology and physics equally; the science in which they were stated would succeed in achieving what metaphysics has vainly attempted, namely, a unified account of what really happens, wholly true even if not the whole truth, and free from all convenient fictions or unwarrantable assumptions of metaphysical entities." 29

This point brings us back to the preface of The Analysis of Mind and Russell's dissatisfaction with behaviourism. According to Russell, there is no point in trying to reduce psychology to physics or physics to psychology, at present each causal law is different from the other and the question of reducing them to each other is not of much importance. In fact, the insistence on the reducibility of what is psychical to what is

²⁸ Ibid. p. 25.

²⁹ Ibid. p. 306.

physical -- such as the behaviourists' insistence, shows less acquaintance with the achievements of modern physics. For "physicists and especially Einstein and other exponents of the theory of relativity, have been making 'matter' less and less material".³⁰ Instead of reducibility, the investigations should be directed towards that

"fundamental unifying science in which the causal laws of particulars are sought, rather than the causal laws of those systems of particulars (underlining is mine) that constitute the material units of physics". 31

At present, however, one can say that the laws of psychology are not more than rough generalizations. For example, the law of association is no more than a

"statistical average. It cannot tell us what will result from a given cause on a given occasion. It is a law of tendency, not a precise and invariable law such as those of physics aim at being." 32

Now, if our discussion of neutral monism is right and there is no fundamental difference between physics and psychology, it follows, then, that there is no basic difference between man and animal. So, if we accept Russell's thesis of neutral monism, then, there is no logical objection to the theory of evolution and the hypothesis of continuity. It is true that Russell does not consider the hypothesis of continuity as a theory like James did, but this is quite understandable on Russell's behalf since he does not consider consciousness as something necessary or so valuable as James does.

The importance of the theory of neutral monism is not restricted

³⁰Ibid. Preface.

³¹Ibid. p. 307.

³²Ibid. p. 304.

only to biology, it is also of great value in the theory of knowledge. If there is no basic difference between man and animal, then the studies on animal behaviour facilitate the understanding of human behaviour, as the behaviourists contend. However, Russell does not want to draw, and object to, the conclusion which the behaviourists draw from the study of the behaviour of the organisms, namely, that there are no minds and psychology is a natural science whose subject-matter is behaviour.

According to Russell, both mind and matter are not substances but logical constructions of the same stuff. However, the mind is constructed of an additional stuff, namely, images. Thus, if mind has a different element namely, images and images, as we have seen, follow a mnemonic law and have a subjective characteristic, then it follows that knowledge cannot be achieved in isolation from mnemonic causation and subjectivity. Yet the behaviourists claim that knowledge consists of observable responses to public stimuli only.

The behaviourists' theory of knowledge, in Russell's view, tells one half of the story. For behaviour itself is conditioned and affected by previous experience. It is quite true that the behaviourists believe that past experience affects the present behaviour. But, according to the behaviourists, the effect of past experience does not merely influence the present responses, it shapes or conditions them -- such an influence can be cast in the form of an invariable law of behaviour.

Russell understands by the term past experience something different from the behaviourists. For Russell, past experience does not acquire such a deterministic influence as the behaviourists attribute to it. Consequently, Russell rejects the behaviourists' view of past experience and

adopts a reformed version of Richard Semon's view of mnemonic influence of past experience.

According to Semon, when an organism is subjected to a certain stimulus, a state of excitement is produced in the organism. On the removal of the stimulus, the organism returns to a condition of equilibrium. "But the new state of equilibrium is different from the old, as may be seen by the changed capacity for reaction."³³ There is then, a difference between the state of the equilibrium of the organism, before the stimulus and after the cessation of the stimulus. The effect of a stimulus left on the behaviour of the organisms is called an "engraphic effect", and the difference between the response of the organism before the stimulus and after the stimulus is called an "engram". Eventually, mnemonic phenomena are defined as those phenomena due to engrams and a Law of Engrapy is reached:

"All simultaneous excitements in an organism form a connected simultaneous excitement-complex, which as such works engraphically, i.e., leaves behind a connected engram-complex, which in so far forms a whole."³⁴

Russell, however, does not accept Semon's theory without qualifications. Russell points out that it is, as Semon himself confesses, impossible to say, concerning the nature of an engram, "more than it must exist in some material alteration in the body of the organism".³⁵ Russell, rightly, then, claims that Semon's view of engram is "in fact, hypothetical

³³Ibid. p. 83.

³⁴Ibid. p. 84.

³⁵Ibid. p. 85.

invoked for theoretical uses, and not an outcome of direct observation".³⁶
 In addition, Semon's explanation of past experience reflects a physiological flavour which is incompatible with Russell's views on psychology.

Consequently, Russell chooses to give his own explanation of the nature of past experience. Accepting Semon's view of mnemonic phenomena, Russell explains it as a necessary part of the psychological law which we dealt with before. Such an explanation, Russell feels, "enables us to state laws of behaviour in less hypothetical terms than we should otherwise have to employ".³⁷ Eventually, Russell collects all mnemonic phenomena under one law which takes into account what is verifiable in Semon's views.

"This single law is:

If a complex A has caused a complex reaction B in an organism, the occurrence of a part of A on a future occasion tends to cause the reaction B." 38

The above mentioned law can be subsumed as a part of the psychological causal law which states that: "A,B,C, ... in the past, together with X now, cause Y now."³⁹ However, as we have seen previously, psychological laws cannot be as precise and as invariable like the laws of physics, as the behaviourists attempt to advocate. The psychological causal law, according to Russell, "is no more than a rough generalization, a statistical average".⁴⁰

³⁶ Ibid. p. 85.

³⁷ Ibid. p. 85.

³⁸ Ibid. p. 86.

³⁹ Ibid. p. 87.

⁴⁰ Ibid. p. 304.

Experience, furthermore, is not only characterized by mnemonic phenomena, it is also characterized by being subjective.* Now, if the human experience is characterised by these elements and it cannot be expressed in terms of invariable laws, then it follows that any view which, first, considers the human experience as being expressible in terms of invariable laws or, second, it rules out the existence of these elements -- mnemacity and subjectivity, then it is a seriously deficient point of view.

Russell believes that behaviourism is such a view, and that this is so, can be shown from the behaviourist theory of knowledge. As I said before, the behaviourist theory of knowledge is basically a theory of learning or conditioning. It seems very obvious that the behaviourists demand a certain kind of uniformity, in responses, which constitutes the criterion of knowledge. Thus, the behaviourists distrust subjectivity and tend to regard the influence of past experience as being more rigid and invariable.

Russell calls the behaviourist demand for uniformity in responses a demand for accuracy. Accuracy, undoubtedly, according to Russell, is a basic factor in any theory of knowledge. at least in his theory of knowledge. However, it does not follow that the theory of knowledge is a theory of learning, nor does it follow that accuracy is the only criterion of knowledge. Given the data of psychology which are characterized by being subjective and mnemonic, it follows that something more, other than accuracy, is required in order to account for the fact of knowledge. That

* The subjective element of experience was explained in our discussion of perception.

something, Russell calls the criterion of appropriateness. As we have seen before, appropriateness takes into account the elements of subjectivity and mnemacity by pervading knowledge with a purpose. Consequently, knowledge, for Russell, is distinguished by two criteria accuracy and appropriateness, and the behaviourists confine their views of knowledge to accuracy only, which is one half of the story of knowledge.

Now if, on the light of the present situation in psychology, one can say that the laws of mnemic phenomena are only statistical averages and laws of tendency, and if mnemic phenomena constitute a solid part of our knowledge, then it follows that our knowledge, so far as the present state of science is what it is, cannot be absolute or perfectly certain. Probably, even when we are able to achieve the laws of correlation which are applicable to both physics and psychology, our knowledge cannot be perfectly certain and absolute since the stuff out of which the world of our experience is made is so atomistic and so particular, even so illusive, to be exactly known.

However, this conclusion about the uncertainty of knowledge is not developed explicitly in The Analysis of Mind. Nevertheless, Russell explicitly says that he is interested in psychology "not so much for its own sake, as for the light that it may throw on the problem of knowledge".⁴¹ So, if it is possible to generalize such an observation concerning the nature of knowledge, so as to span some of Russell's works besides The Analysis of Mind, then we can see to what extent that view of knowledge is important in Russell's works especially his works on ethical, religious,

⁴¹Ibid. p. 15.

social, and political issues.

BIBLIOGRAPHY

- James, William. The Principles of Psychology. Vol. I, Henry Holt & Co., New York (1908).
- James, William. Psychology. Henry Holt & Co., New York (1893).
- James, William. Pragmatism. Meridian Books, New York (1955).
- James, William. Essays in Radical Empiricism and A Pluralistic Universe. Meridian Books, New York (1955).
- Pears, David. Bertrand Russell: A Collection of Critical Essays. Doubleday & Co., New York (1972).
- Russell, Bertrand. Our Knowledge of the External World. W.W. Norton & Co., New York (1929).
- Russell, Bertrand. Logic and Knowledge. Edited by Robert C. Marsh, George Allen & Unwin, Ltd., London (1956).
- Russell, Bertrand. The Analysis of Mind. George Allen & Unwin, Ltd., London (1961).
- Watson, James. Behaviorism. W.W. Norton & Co., New York (1925).