BERTRAND RUSSELL'S NEUTRAL MONISM

By

MAFIZUDDIN AHMED

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ABSTRACT

This work is a study of Russell's neutral monism with special emphasis on the stages of its development. Two distinct phases are recognised; these are called 'partial neutralism' and 'complete neutral monism'. The first is advocated in 'The Analysis of Mind' and the second in his later works.

The work is mainly interpretative. This involves comparison and criticism of the views expressed at different stages and the interpretations given by critics and commentators and Russell's replies to them, as also clearing up certain ambiguities and misunderstandings. In this respect it is a critical exposition of Russell's theory.

The discussions begin with a historical sketch of the development of neutral monism in general with brief reproduction of the views of its early propounders (Chapter I).

Russell's theory is discussed in several chapters. First, a preliminary account is given showing how he comes to adopt it at first partially and then completely from the position of logical atomism (Chapter II). The theories of the neutral stuff, matter, and mind are then discussed separately in some detail indicating in each case the important changes made at different stages (Chapters III, IV, V). Finally, some questions concerning body, mind and person are considered, and reference is made to the modern 'Identity Hypothesis' and Strawson's views on persons (Chapter VI).

The final version of Russell's theory seems to attain a sort of theoretical completeness and to avoid certain difficulties involved in the earlier theory of partial neutralism. The Identity Hypothesis is found to be originally Russell's idea, and to be tenable as an aspect of neutral monism rather than in its present physicalist form. Strawson's arguments for the 'primitiveness' of the concept of a person seem unsatisfactory; Russell's theory may be wrong, but Strawson's position does not prove that it is so.

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M. Ahmed.

CONTENTS

INTRODUCTION

Bertrand Russell in his long career as a philosopher has produced a large number of works covering a wide variety of subjects. He has made important contributions to various fields, has developed many new ideas and has suggested instructive hypotheses. His influence on contemporary philosophy, especially in logic, logical analysis, the philosophy of science, epistemology and metaphysics, cannot perhaps be exaggerated. There are few books written on philosophy during the last few decades, which do not in some way refer to Russell's works or make use of some of his ideas. This is perhaps the reason why Allan Wood remarked a few years ago that "there is little of importance in present-day philosophizing which is not derived from him. The post-Russellians are all propter-Russellians."[1]

In the course of the development of his thought, Russell's views on many topics have undergone changes, sometimes resulting in opposite ideas at different stages. In spite of this, there is throughout a unity of purpose and constancy of method.[2] The purpose has always been to attain as much certainty in knowledge as possible, a passionate search for truth. The method is that of logical analysis, developed in his mathematical

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1. My Philosophical Development, p.257.
2. M.Weitz, 'Analysis and the Unity of Russell's Philosophy', The Philosophy of Bertrand Russell, pp.55ff.

logic and employed in every branch of philosophy. For him, every philosophical problem is a problem of analysis, and the business of philosophy is essentially that of logical analysis followed by logical synthesis.[1]

Truth, Russell believes, can only be obtained from the understanding of the world as a whole, not simply the little world of human mind and experience. He has often complained against philosophers of "cosmic impiety"[2], of being too much concerned with this petty planet and with "the different ways in which silly people can say silly things"[3], and not trying to understand the world. He finds little satisfaction "in contemplating the human race and its follies".[4] He says, "Those who attempt to make a religion of humanism which recognises nothing greater than man, do not satisfy my emotions. And yet I am unable to believe that, in the world as known, there is anything that I can value outside human beings ....."[5] This conflict shows the attitude he has taken to philosophy in general. He has tried to obtain a philosophy of the world in which man and other things are seen in their proper places.His attempts, like those of any other philosopher, have been a failure in the sense that he has not been able to get the

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1. 'Philosophical Importance of Mathematical Logic', Monist, October, 1913; Logic and Knowledge, p.341.
2. History of Western Philosophy, p.782(New Edition,1961).
3. My Philosophical Development, p.230.
4. Ibid., p.131.
5. 'My Mental Development', The Philosophy of Bertrand Russell, pp. 19-20.

certain impersonal truth which he set out to find.[1] But they are also a success in the sense that he has been able to show that such impersonal absolute truth is not attainable, at any rate on purely empirical grounds. And in his search for truth he has developed a philosophical method which gives valuable knowledge, though not absolute certainty, and which enables the philosophers employing it to argue and concur in respect of exact hypotheses, all compatible with the existing evidence.[2]

The philosophical study of the world involves a vast range of topics, and Russell's works cover them generally. The wide variety of his philosophical interests makes it difficult to obtain, with justice to them all, a systematic account of his philosophy within a short space. It is, however, possible to recognise some aspects which have engaged his attention more or less permanently, and to produce an account of the relevant issues with special reference to the development of his ideas about them. One of such aspects concerns the metaphysical problem of the ultimate nature of the reality of the world with the question of the relation of mind and matter as an important aspect of it. This problem is in some sense basic in philosophy, and any system of philosophy must offer some explanation of it. As in many other cases, Russell's views on this particular subject have undergone changes; but we find that in his later

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1. Russell recognises this in retrospect; see 'My Mental Development', The Philosophy of Bertrand Russell, pp.19-20.
2. Ibid, p.20.

writings he has constantly maintained a theory called 'neutral monism'. According to it, mind and matter are not the ultimate realities of the world; the world consists of something more primitive and fundamental; and mind and matter are composed of the primitive 'stuff' arranged in different ways. Thus, the theory holds that there is no fundamental dualism between mind and matter, but only a difference of arrangement, relation or context.

Neutral monism had been maintained by some philosophers before Russell. He accepted it in 1919 and has since then advocated it continuously. This theory has been his metaphysical faith for nearly half a century now, a period which has witnessed some of the results of his maturer philosophical thought. It is therefore important to understand his theory of neutral monism both because the theory itself is important and instructive, and because a study of it is a valuable help in gaining an insight into his philosophy in general.

While maintaining the fundamental thesis of neutral monism throughout this period, Russell has made important changes in the details of it at different stages of his philosophy. Accordingly, there is a history of the development of his neutral monism. In developing this theory as also his philosophy in general, he has not claimed that his solutions are the final truth. He is a philosopher who is an example of self-criticism. As he has considered his philosophy, he has at

any subsequent stage criticised his earlier views; each advance he has made constitutes a criticism of his previous position. So, his philosophy leaves little scope for criticism on orthodox lines. What is needed, therefore, is not so much to criticise him as to understand him.[1]

However, Russell's philosophy in general, and his neutral monism in particular, have not gone unopposed. There are a good number of reviews, articles and short references here and there in which his neutral monism has been criticised, and sometimes rather severely. There are two things that one finds about these criticisms. First, there is in some cases a lack of recognition of the different stages of the development of the theory with the result that attacks have been directed to a position which Russell had already criticised and abandoned. Secondly, criticisms have sometimes been made on the basis of some interpretations of some his ideas, which he would not perhaps recognise as adequate interpretations at all. The latter has arisen from two things. On the one hand, Russell himself has not always been as precise and unambiguous as one might wish, thus leaving room for alternative interpretations to suit a commentator's special bias. On the other hand, interpretations have sometimes been made out by considering some of his statements taken out from the proper context and without regard to

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1. Cf. Allan Wood's remarks, My Philosophical Development, p.258.

other relevant statements.

Now, besides criticising his own earlier positions at subsequent stages, Russell has also tried to clarify his position in defensive articles and replies. We have, therefore, a complex situation about his theory of neutral monism: he has developed it in different phases by making important changes at different times, and thus his views are to be found in a number of books and articles; his critics and commentators have represented him in ways which he often disapproves (and sometimes rightly) and which are mostly partial; and there are his own replies and clarifications. A proper understanding of his theory will now require a consideration of these various developments. There is, however, no single book either of Russell himself or of anyone else, which offers a brief account of the theory, —— an account that shows the development of the theory in its different phases and contains references to these various sources.

It is clear that there is a case for a study of Russell's neutral monism in the manner indicated above, and that this would be a valuable contribution to the understanding not only of his metaphysical position, but also of his philosophy in general to some extent. At present the study is also important from another point of view. Since long Russell has maintained as an aspect of his neutral monism a theory of the relation of mind and body (brain in particular) which in a somewhat modified form is much in vogue now-a-days. In recent years it has been called the

'mind-body identity theory', which is sometimes maintained without proper recognition of its original form or source. But it is useful to know it in its original form and original context. A study of the development of Russell's neutral monism will reveal that the identity theory owes its origin to his neutral monistic construction of mind and brain.

But the proposed study is not an easy and simple task; the very complexity of the situation speaks for this. Volumes may be necessary to make it exhaustive. Yet it is not impossible to take it up in a limited scale and make a worthwhile contribution to the subject. The present work is such a limited attempt at producing a brief historical account of Russell's neutral monism with special reference to the stages of its development. The purpose is mainly interpretative. But in a situation as this, interpretation must involve a good deal of criticism and comparison of both Russell's views of different stages and the interpretations and comments of his critics. In this sense the present work may be called a critical exposition of Russell's neutral monism.

The limitations of the present work should perhaps be made a little more precise. Neutral monism is a metaphysical theory. But as Russell presents it, it is not kept separate from problems which are not strictly metaphysical. In his works, various logical and epistemological problems are discussed elaborately side by side with his metaphysics. These problems

are not discussed here except to the extent it is absolutely necessary for understanding the metaphysical position. Again, this work is mainly concerned with the development of Russell's ideas in his own philosophy, and not with the continuation of them by other philosophers with one or two exceptions. One such exception is the identity theory about which something is said in the sequel.

The scope of the work can perhaps also be understood from its plan which is as follows. As neutral monism was held by other philosophers before Russell, some knowledge of the earlier versions of the theory would certainly facilitate the understanding of Russell's position. So, our discussions begin with a brief representation of these earlier views. This forms the subject-matter of Chapter I.

The consideration of Russell's theory is divided into several chapters. First, the question of the development of his neutral monism out of his earlier positions is taken up. Two distinct phases of his neutral monism are recognised. These are called 'partial neutralism' and 'complete neutral monism'. The first is the theory advocated in 'The Analysis of Mind', and the second in his later works. Attempts are also made to give a short account of the relation of his logical atomism and neutral monism. All these constitute the contents of Chapter II.

Neutral monism may be said to have three main parts, namely those dealing respectively with the neutral stuff, matter, and mind. These three parts are considered separately in this order

in three different chapters, namely chapters III, IV and V. In each of these chapters the relevant subject is discussed with reference to the development of Russell's views and the changes he makes at different stages. Finally, some questions concerning the mind-body relation and the concept of a person are discussed in a separate chapter (Chapter VI). In this connection, reference is made to two recent developments. One is the modern 'Identity Hypothesis' which is a continuation of an aspect of Russell's theory in a modified form. The other is P.F. Strawson's views on the concept of a person, which may be said to oppose not only Russell's views, but also any kind of analytic conception of a person.

The final version of Russell's complete neutral monism turns out to be a kind of 'emergent' neutralism. It attains a sort of theoretical completeness and avoids certain difficulties involved in his earlier theory of partial neutralism. The Identity Hypothesis is found to be originally Russell's idea, and to be as old as his complete neutral monism. It is argued to some extent that in its present physicalist form this hypothesis seems untenable, and that it has a better chance of being true as an aspect of neutral monism, such as is found in Russell's philosophy. Strawson's claim that the concept of a person is a 'primitive' concept seems unsatisfactory and as such cannot be said necessarily to invalidate Russell's position. Russell's theory may be wrong, but Strawson's arguments do not prove that it is so.

CHAPTER I

ORIGIN AND DEVELOPMENT OF NEUTRAL MONISM

1. Neutral Monism in General

Neutral monism is the theory that things commonly regarded as mental and things commonly regarded as physical do not differ in respect of any intrinsic property possessed by the one set and not by the other, but differ only in respect of arrangement and context. Mind and matter, according to this theory, are not two radically different kinds of entities, but are constructed out of the same 'stuff'. It is admitted that there is some difference between the mental and the physical, since to deny this would be an absurdity. But the difference is not one of 'stuff', but of relations, arrangements, and contexts. There is only one kind of 'stuff' out of which the world is made; the stuff is called mental in one arrangement, and physical in another. Russell illustrates[1] this theory by comparison with a postal directory in which the names appear twice over, once in alphabetical and once in geographical order. We may compare the alphabetical order with the material and the geographical order with the mental phenomenon. The affinities of a given thing are quite different in the two orders, and its causes and effects may obey different laws. Just as every man in the directory has two kinds of

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1. Logic and Knowledge, p.139; Portraits from Memory, p.148.

neighbours, so every object will be at the intersection of two causal series, namely the mental series and the physical series.

Thus the neutral entities that make the world may be arranged in two different ways. A group of neutral entities arranged in one way will constitute a piece of matter or physical object; and the same neutral entities arranged in the other way will constitute a mind or a series of mental events. Considered by themselves and apart from either of the arrangements, the neutral entities are neither mental nor physical. That is why they are called neutral. Mind and matter are both complexes derived from the same primitive stuff, the neutral entities.

This theory is monist in the sense that the world, according to it, is composed of only one kind of stuff, namely the neutral entities; but it is also pluralist in the sense that a multiplicity of entities make up the neutral stuff of the world.

Any theory of neutral monism must contain three parts:[1]

(1) A theory of the neutral stuff: This must tell us what kind of entities the neutral entities are.

(2) A theory of matter: This must show how matter is constructed out of neutral entities. It has to explain what kind of relations hold between a set of neutral entities when they constitute a material object; it has to show what exactly the arrangement of a set of neutral entities is when that set constitutes a piece of matter.

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1. W.T.Stace, 'Russell's Neutral Monism', The Philosophy of Bertrand Russell, p.354.

(3) A theory of mind: The main question to be answered here is about how a mind is constructed out of neutral entities. This part of the theory has to show what kind of relations hold between a set of neutral entities when they constitute a mind; it has to explain what exactly the arrangement of a set of neutral entities is when that set makes up a mind or a mental phenomenon.

Different versions of neutral monism formulate these three parts of the theory differently. All answer the same questions; but they differ just in the answers they give to these questions.

Neutral monism has to be distinguished from other types of monism, that is from both idealistic and materialistic monism. According to the former, "mind alone is real and matter is an illusion"; and according to the latter, "matter alone is real and mind is an illusion".[1] Idealism or mentalism denies the reality of the external world and explains everything in terms of our 'ideas' or 'mental states'. Materialism, on the other hand, takes the opposite view and declares matter to be the only reality, and mind as only a function of matter, an epiphenomenon, having no reality of its own. Neutral monism avoids the one-sidedness of both these theories; as regards mind and matter, it does not reduce the one into the other or, in other words, it does not derive the one from the other; but it derives both mind and matter from the same primitive stuff that is neutral between them.

The motives that has inspired neutral monism are mainly

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1. An Outline of Philosophy, p.303.

two.[1] The first motive is to get rid of the psycho-physical dualism and the second motive is empiricism. Ever since Descartes introduced in his philosophy a complete "bifurcation of nature"[2] into mind and matter, philosophers have found it difficult to explain their relation, particularly their interaction. Descartes defined mind as the thinking substance and matter as the extended substance. Thinking and extension were conceived by him as mutually exclusive. Thus a gulf was created between mind and matter, there being nothing common between them. Gilbert Ryle describes this position as "Descartes' Myth"[3], which has caused a lot of troubles in philosophy for more than two centuries. Throughout the history of modern philosophy attempts have been made to avoid this gulf by upholding one and consequently suppressing the other of the 'substances'. The results have been idealism or materialism according as mind or matter has been taken as 'the' reality. Neutral monism is an attempt to get rid of the psycho-physical dualism without falling into idealism or materialism which hitherto seemed the only alternatives. It tries to bridge the gulf between mind and matter by showing them both to be complexes derived from the same neutral stuff.

The second important motive of neutral monism is to give an account of the world in terms of empirically verifiable entities.

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1. W.T.Stace, op. cit., p.304.

2. A.N.Whitehead, The Concept of Nature, p.26.

3. G.Ryle, The Concept of Mind, p.13.

The stuff of the neutral monists is never any kind of hidden mysterious substance or thing-in-itself. The notion of substance as something unknown and unknowable behind the phenomenal world was rejected by Hume; and since then it has always been doubted. The neutral monists are avowedly opposed to the notion of Cartesian substance or Kantian 'Ding-an-sich'. Neutral monism is an attempt to construct mind and matter out of entities that are empirically verifiable.

Historically, neutral monism is of comparatively recent growth. It was originated by Ernst Mach in 1886 and was developed by William James, the American New Realists and Bertrand Russell. The word 'neutral' was not used by Mach and James. It was invented by H.M.Sheffer[1]; and following his suggestion, the new realists used the term 'neutral entities' and 'neutral stuff'. Russell used the name 'Neutral Monism' for his own theory as also for the theories of Mach, James and the new realists. We shall present below in bare outline the theories of neutral monism as were developed by these predecessors of Russell.

2. Ernst Mach

Neutral monism owes its origin to Ernst Mach. He developed the theory in 'The Analysis of Sensations' which was first published

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1. Cf. E.B.Holt, The Concept of Consciousness, Preface, p.XIV.

in 1886 and in English translation in 1897,- a book described by R.B.Perry as one "among the classics of modern realism".[1] Mach's views are based on an analysis of 'observation', that is, of what we observe in the world.

The world we observe is populated by various sorts of objects, animate and inanimate, human and non-human, body and ego. These things are relatively permanent constituents of the world.[2] But close inspection reveals to us that each of these objects is continually changing, and yet is regarded as the same object. He says;

> 'My table is now brightly, now dimly lighted. It may receive an ink stain. One of its legs may be broken. It may be repaired, polished, and replaced part by part. But for me, amid all its changes, it remains the table at which I daily write.' [3]

The same is true of 'I' or 'ego'. There are changes in me, and yet enough durable features remain to identify the ego. This is possible because all the features of an object do not change at a time, because more features remain apparently unchanged than are obviously changed. So, the relative permanence of the object is due to the fact that it is a complex of large number of features, properties or elements. Thus "the component parts of the complex are first exhibited as its properties".[4] We also observe that

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1. R.B.Perry, The Present Philosophical Tendencies, p.310.

2. E.Mach, The Analysis of Sensations, pp.2-3.

3. Ibid., p.2.

4. Ibid., pp.3-4.

different objects have common properties or elements which are particular colours, shapes, textures, tastes, particular experiences and so on. Not only the sensible qualities of external objects are elements, but also particular experiences; in fact, any experience is an element of some complex.[1] Thus observation reveals to us that objects are complexes of elements which are their component parts. These elements are ultimate in the sense that they are not further analysable. They are simple or atomic.[2]

Mach thus arrives at the notion of elements as the constituents of objects. He then calls the elements 'sensations'. Elements are sensations because we discover them only through sense-experience. He says:

> ' A colour is a physical object so long as we consider its dependence upon its luminous source, upon other colors, upon heat, upon space and so forth. Regarding, however, its dependence upon the retina ... ... it becomes a psychological object, a sensation.'[3]

A bare colour is neither physical nor psychical; it is, we may say, neutral. Colours, tones, pressures, pains, desires, hopes and fears are, so far as our experience goes, are something that occur in us,- sensations which we combine to form ideas which we call 'external objects', or our 'body' or 'mind'.[4]

The world, according to Mach, consists only of sensations. Properly speaking, the world is not composed of 'things' as its elements, but of colours, tones, pressures,in short what we usually

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1. E. Mach, op. cit., p.5.
2. P.Alexander, Sensationalism and Scientific Explanation, p.7.
3. E.Mach, op. cit., p.14.
4. P.Alexander, op. cit., p.12.

call individual sensations. These include not only our own sensations but also those of others. Mach admits other people and their minds on the basis of an argument from analogy.[1] These again are complexes as our own bodies and minds are.

Mach feels that it is improper to call the elements sensations. He says:

> 'Usually, these elements are called sensations. But as vestiges of a onesided theory inhere in that term, we prefer to speak simply of elements. The aim of all research is to ascertain the mode of connexion of these elements.'[2]

The elements are the only stuff,— the neutral stuff,— of the world, which is just a mass of these elements. Mind and matter, body and ego, are only ideal shorthand names of groups of such elements. Mach says:

> 'The primary fact is not the I, the ego, but the elements (sensations). The elements constitute the I. I have the sensation green, signifies that the element green occurs in a given complex of other elements (sensations, memories). When I cease to have the sensation green, when I die, then the elements no longer occur in their ordinary, familiar way of association. That is all. Only an ideal mental-economical unity, not a real unity, has ceased to exist.'[3]

As regards bodies, Mach says that they do not produce sensations, but complexes of sensations or elements make them up. Bodies are only "thought-symbols for complexes of sensations".[4] Thus Mach rejects the idea of the world as consisting of mysterious

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1. E.Mach, op. cit., pp.33ff.
2. Ibid., p.18.
3. Ibid., pp.19-20.
4. Ibid., p.22.

entities or substances acting upon one another and thus producing sensations. The world, for him, is composed of elements which are in themselves neutral entities.

3. William James

Mach arrived at neutral monism through physics. James, whose opinions are fundamentally the same, arrived at them through psychology. These were first published in an article, 'Does Consciousness Exist?', in 1904. This and other essays containing the same views are collected in the posthumous book 'Essays in Radical Empiricism'.

There seems to be a confusion as to whether James developed his neutral monism independently of Mach. Russell thinks[1] that as James in his articles on the subject does not refer to Mach he must have reached his conclusions independently. This is also the opinion of Morris Weitz.[2] On the other hand, Passmore in discussing James' views suggests that he must have learnt much from Mach.[3] James says in his essay of 1904 that he had mistrusted 'consciousness' for the previous twenty years and suggested its non-existence to his students for the past seven or eight years.[4] This seems to support

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1. Logic and Knowledge, p.140 foot-note.
2. M.Weitz, op. cit., p.70.
3. J.Passmore, A Hundred Years of Philosophy, p.109 foot-note.
4. W.James, Essays in Radical Empiricism, p.3.

Russell's remarks. But the time James mentions is just about the time that elapsed between the publications of their views. Moreover, as R.B.Perry points out, James was in regular correspondence with Mach whose works he read carefully.[1] Perry also points out that when 'The Analysis of Sensations' was about to be published Mach wrote to James about it, and that James in a letter to Stumpf (January, 1886) said: "I am thirsty to read it".[2] In Perry's opinion Mach's book was a precursor of James' doctrine of pure experience.[3] In view of all these , it seems natural to suppose, without minimising James' originality of approach and arguments, that he had known Mach's views and benefited by them.

James feels that philosophers including himself had not been radical enough to follow strictly the empirical principle that they must not admit into their constructions any element that is not directly experienced, nor exclude any element that is directly experienced. Radical empiricism must adopt this principle, which he calls 'the principle of pure experience', 'a methodical postulate'.[4] For such radical philosophy, "the relations that connect experiences must themselves be experienced relations, and any kind of relation experienced must be accounted as 'real' as anything else in the system".[5] This is the central

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1. R.B.Perry, The Thought and Character of William James, vol. II, p.463.
2. Ibid., vol.II, p.65.
3. Ibid., vol. I, pp.588-9.
4. W.James. Essays in Radical Empiricism, pp.42, 159, 241.
5. Ibid., p.42.

doctrine of radical empiricism, which makes it possible to escape the vicious disjunctions that have hitherto baffled philosophy,— disjunctions such as between consciousness and physical nature, between thought and its object. The disjunctions need not be overcome by calling in any 'trans-empirical connective support'; they may now be got rid of by regarding them as only "differences of empirical relationship among common empirical terms".[1]

James comes to the view that the world is only the world of 'experience'; things and thoughts are no more than points of emphasis within that world. Consciousness, James declares, is not an entity:

> 'It is the name of a non-entity, and has no right to a place among first principles. Those who still cling to it are clinging to a mere echo, a faint rumour left behind by the disappearing 'soul' upon the air of philosophy.'[2]

While thus denying the existence of consciousness as an entity, James admits that the word stands for a function. He says that there is no aboriginal stuff or quality of being, contrasted with that of which material objects are made, out of which our thoughts of them are made. But he thinks that there is a function in experience which thoughts perform. This function is 'knowing'.[3] He says:

> 'My thesis is that if we start with the supposition that there is only one primal stuff or material in the world, a stuff of which everything is composed, and if we call that stuff "pure experience", then knowing can be explained as a particular sort of relation towards one another into which portions of pure experience may enter. The relation

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1. W.James, op. cit., p.XI (Preface by R.B.Perry).
2. Ibid., p.4.
3. Ibid., pp.4-5.

> itself is a part of pure experience; one of its terms becomes the subject or bearer of the knowledge, the knower, the other becomes the object known.'[1]

James rejects the view that experience contains an essential opposition of subject and object. He believes that experience has no such 'inner duplicity', and that the separation of it into 'consciousness' and 'content' comes, not by way of subtraction, but by way of addition, to a given concrete bit of it, of other sets of experiences. In connection with these other sets severally, the function or use of the given bit of experience may be of two different kinds.[2] A given individual portion of experience, taken in one context of associates, plays the part of a knower, of a state of mind, and in a different context, plays the part of a thing known, of an objective content. In short, the same piece of experience figures in one group as a thought, and in another group as a thing.

The same experience can thus stand at once as a member of two groups just as "one identical point can be on two lines".[3] It can be counted twice over and spoken of as 'existing in two places', although it remains all the time numerically a single thing.[4]

Thus, for James, consciousness does not denote a special stuff or way of being; it stands for a kind of external relation. The stuff of the world is 'pure experience'. "The peculiarity

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1. W.James, op. cit., p.4.
2. Ibid., pp.9-10.
3. Ibid., p.12.
4. Ibid., p.12.

of our experiences, that they not only are, but are known, which their 'conscious' quality is invoked to explain, is better explained by their relations —— these relations themselves being experiences —— to one another."[1] Thus we do not need to presume either 'things' or 'consciousness', considered as entities, in order to give an account of knowledge.

The discrimination, as we ordinarily make, between some of our experiences as existing 'only in the mind' and others as 'real' or 'objective' is only because they stand in different relationship to our other experiences. James writes:

> 'Mental fire is what won't burn real stick ..... Mental knives may be sharp, but they won't cut real wood ..... With "real" objects, on the contrary, consequences always accrue; and thus the real experiences get sifted from the mental ones, the things from our thoughts of them, fanciful or true, and precipitated together as the stable part of the whole experience-chaos, under the name of the physical world.'[2]

James declares that the central point of his 'pure-experience theory' is that 'outer' and 'inner' are names for two groups into which we sort experiences according to the way in which they act upon their neighbours.[3] These two groups we call physical and mental respectively. Both are composed of pure-experience, the neutral primal stuff of the world.

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1. W.James, op. cit., p.25.

2. Ibid., p.33.

3. Ibid., p.139.

4. The New Realists

The new realists worked out their neutral monism under the influence of Mach and James. However, not all the six philosophers who in collaboration produced 'The New Realism' were advocates of neutral monism. Only Perry and Holt turned out neutral monists; others, Montague especially, were highly critical of this theory.[1] The fundamental points in which they all agreed are their insistence on the dependence of philosophy on logic, particularly Russellian mathematical logic, their defence of the validity of 'analysis' against the doctrines of idealism, and their emphasis on the theory that all relations, including knowledge relation, are external. In knowledge, the known is not constituted by its relation to the knower, or the knower by its relation to the known, or either of them by the fact of its being a term in the knowledge relation.

The new realistic theory of neutral monism is to be found in Perry's 'Present Philosophical Tendencies' and Holt's 'Concept of Consciousness', both published in 1912. Their articles in 'The New Realism' contain some approach to the subject, though the theory is not directly advocated in them.

The Holt-Perry version of neutral monism is "an out-radicalising of James's radical empiricism".[2] James had rejected 'consciousness' as an entity. There are only 'experiences', and knowing is a relation between portions of pure experience. To this

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1. J.Passmore, op. cit., p.263.
2. Ibid., p.263.

it is objected that 'experience' can only be defined as that of which a conscious being is aware, that to talk of experience is to presume the reality of consciousness. Holt and Perry try to meet the objection by defining experience without making any reference, explicit or implicit, to consciousness.

These thinkers feel that James' views contribute only a 'preliminary induction'. These views emphasise the fact that 'mental content' is distinguished, not by the stuff of which it is composed, but by the way in which it is composed, that is, by the composing relation. They afford "unmistakable evidence of a special and important grouping of objects; but they do not reveal the principle which defines the group".[1] Perry and Holt propose to investigate this principle, that is, the relation that composes the group.

For this purpose, they turn upon an aspect of James' earlier philosophy and combine it with the theory of perception Bergson had propounded in 'Matter and Memory'. In an essay called 'Spencer's Definition of Mind'(1878), James had emphasised that a human being is an organism which has to adapt itself to its environment for its survival. Bergson had argued that a mind's content consists of that part of its environment to which its attention is momentarily directed. Holt and Perry conclude that mind is 'an interested response of an organism'. Perry says:

> 'Content of mind must be defined as that portion of the surrounding environment which is taken account of by the organism in serving its interests ..... As mind appears

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1.R.B.Perry, Present Philosophical Tendencies, p.278.

> in nature and society, it consists primarily in interested behavior'[1]

Consciousness is not involved here, not even in the form of a 'mental content'.

These thinkers discard the notion of 'private content' of particular minds. Perry declares that to argue that because something is in one mind it cannot be in another mind, is to commit what he calls "the fallacy of exclusive particularity".[2] Every content is public, because we can know each other's mind. If different minds could not know each other, if contents of different minds could not intersect, inter-human communication would be impossible. It is, of course, true that one person may at times find it difficult to ascertain what is going on in another's mind; but this difficulty never amounts to an impossibility.[3] All sorts of mental contents, that is, contents of perception, memory, thought, desire, etc., thus turn out in ultimate analysis to be 'public'. They all coincide with other manifolds, namely nature, history and other minds. Just as numbers and logical concepts are in our minds and also inhere in physical nature, so also all other mental contents. Perry says:

> 'The contents of my mind exhibit no generic character... ...The elements of the introspective manifold are in themselves neither peculiarly mental nor peculiarly mine; they are neutral and interchangeable.'[4]

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1. R.B.Perry, Present Philosophical Tendencies, p.300; cf. also E.B.Holt, The Concept of Consciousness, p.338.
2. R.B.Perry, Present Philosophical Tendencies, p.286.
3. Ibid., pp.286ff.
4. Ibid., p.277.

Holt writes:

> 'Contents of our mind are not "mental" in their nature, these contents are all neutral entities, are all of such a stuff as logical and mathematical manifolds are made of.'[1]

According to these philosophers, not only does mind resolve into neutral elements, but also matter or physical objects. Material objects, like mental objects, are composed of a neutral stuff. "The elements of the physical world are neutral entities— terms and propositions — with no residual substance to be called 'matter'."[2]

The world, therefore, is composed of neutral entities. Nothing exists except the neutral stuff, the objective elements. Knowing is a relation between such elements; the only peculiarity about it is that at least one of its terms must be an organic process.

These thinkers thus oppose both idealism and materialism. As Holt says,

> 'The idealistic doctrine that all being is idea is no more tenable than the derided materialistic doctrine that all being is matter ... ... The simple entities, of which in the last analysis all things are composed, have no substance ... ... they are a class.'[3]

This class includes all the actual and possible objects of thought, real and unreal, — sensations, primary and secondary qualities, terms and propositions, logical and mathematical entities. While

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1. E.B.Holt, op. cit., p.114.
2. Ibid., p.131.
3. Ibid., p.135.

some of them are not real, that is, do not exist, all alike subsist; they all have a timeless eternal 'being' in the all-inclusive universe of neutral entities.

The difference between the 'real' and the 'unreal' is an arbitrary convention. We set up a system of connected perceptions which we dignify with the name of reality; we call a perception real if it has a place in that system, and unreal if we wish to deny it the right of entrance to this exclusive society. Thus the Holt-Perry version of neutral monism amounts to a sort of logical realism.

Now, there are real difficulties in this version of neutral monism. In fact, the doctrine of the 'very nearly Platonic' eternal beings, the distinction of 'being' and 'reality', and the consequent conception of the 'unreal' — error, illusion, hallucination — were, in particular, severely criticised. At one time Russell himself produced a criticism of the neutral monism of Mach, James and the new realists. We shall shortly come to this. It is because of the difficulties which he felt in the theories of these thinkers, that he was rather slow in accepting neutral monism. He adopted the theory when he found good reasons of his own to convince himself of the adequacy of the fundamental thesis of the theory as an explanation of the world, only when he thought that neutral monism could be maintained without falling into the

errors of its early propounders.[1]

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1. The history of neutral monism includes another reputed philosopher. He is Rudolf Carnap. In his book, The Logical Structure of the World' (English translation by R. A. George of 'Der Logische Aufbau Der Welt'), Carnap has produced a version of neutral monism by adopting the basic thesis of the earlier advocates especially that of 'The Analysis of Mind' by Russell, and by rigorously applying to it the latter's logic. He accepts Russell's method of logical construction and tries to establish a 'constructional system of objects or concepts' out of some basic elements which, for him, are total moments of experience called 'elementary experiences'. By utilising Russell's theories of relations and types, he attempts to represent all objects or concepts including mind and matter in one 'epistemic-logical system of concepts or objects' by arranging them into a hierarchy of conceptual levels.

As we are not so much concerned with the continuation of Russell's ideas by other philosophers, we are not producing here an account of Carnap's neutral monism. This may be seen in his work referred to above. Carnap has, however, given up neutral monism in favour of physicalism; but Russell, who accepted the theory before Carnap and whom the latter followed, still holds it today. It is his version of the theory which we shall consider in the following chapters.

CHAPTER II

DEVELOPMENT OF RUSSELL'S NEUTRAL MONISM

1. An Outline of the Development

Russell had been under the influence of Hegelian idealism until 1898 when, with encouragement from G.E.Moore, he threw over the doctrines of Hegel. He came to believe in "the bizarre multiplicity of the world".[1] He then accepted the common-sense pluralism which assumes the existence of external objects, of minds, and of universals. In his early works he adopted without question the beliefs that all these things exist and that we know them directly. In 'The Problems of Philosophy' (1912) he expresses a definite change of views. He now asks if physical objects can be said to exist in the sense in which common-sense supposes them to do; he asks if we directly know them. In this book, these objects still exist, but now we can only know them indirectly through our sensations (or sense-data). Thus here was the beginning of a process of modification of the common-sense picture of the world. Russell carried on this process of modification in his later works and thus arrived at his theory of neutral monism.

One way[2] of tracing the development of Russell's neutral monism is to begin by recognising three different stages relating to

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1. Portraits from Memory, p.40.
2. W.T.Stace, op. cit., pp.354ff.

his three important books, namely 'The Problems of Philosophy', 'Our Knowledge of the External World'(1914), and 'The Analysis of Mind'(1921).[1] The successive stages may be regarded as the result of successive application of 'Occam's Razor', one of Russell's supreme methodological principles of philosophising, which he had already found very successful in solving logical and mathematical problems. Russell had accepted Meinong's view that in sensation there are three elements, namely act, content and object.[2] In 'The Problems of Philosophy', the mental act of being aware and that of which one is aware are called after the fashion of Moore 'sensation' and 'sense-datum' respectively. The physical object is not the

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1. There is a further stage, shortly to be discussed, that relates to Russell's works published after 'The Analysis of Mind'. This stage is that of 'The Analysis of Matter' and 'An Outline of Philosophy' and the subsequent works, and has to be distinguished from that of 'The Analysis of Mind'. Accordingly, we shall have to recognise two stages or phases of his neutral monism.

   As to the development of Russell's philosophy in general, a few good accounts are already available. We need not therefore produce one here. Russell has published a masterly philosophical autobiography called 'My Philosophical Development'. He has also given brief acconts of the development of his thought in 'My Mental Development' in Schilpp's collection, in 'Logical Atomism' in Contemporary British Philosophy, first series (reprinted in Logic and Knowledge), and in Portraits from Memory. There are some discussions in Morris Weitz's article in Schilpp's collection, and in Charles Fritz's 'Bertrand Russell's construction of the External World'.

2. In 'The Analysis of Mind'(p.16) Russell ascribes the three-factor theory of presentation to Meinong, and in 'My Philosophical Development'(p.134) he ascribes it to Brentano. As far as I can see the former is correct, but the latter is not. For, this theory was in fact produced by Meinong and not by Brentano. Cf. J.N. Findlay, Meinong's Theory of Objects and Values, pp.6f., and J.Passmore, A Hundred Years of Philosophy, pp.179, 182.

sense-datum, but the cause of it. We are directly acquainted with sense-data as also the mental facts, but the physical object is never directly perceived. We know the physical object as that to which a certain description applies; it is only by inference, not by direct perception, that we know that there is such a thing.

To transform the ideas of 'The Problems of Philosophy' into neutral monism two major changes are necessary. First, the physical object conceived as the cause of sense-data must be got rid of. This can be done if the physical object or piece of matter is declared to be nothing but the sum-total of the sense-data. The second change required concerns the theory of mind. Consciousness as an entity has to be repudiated; mental act as distinguished from sense-datum has to be abandoned. Mind and the mental have then to be identified with some arrangement or grouping of sense-data (or sensations). Both mind and matter will thus be shown to be composed of sense-data which are to be regarded as neutral between them.

Russell did not make both the changes at once. In 'Our Knowledge of the External World' he still retains the psycho-physical dualism of sensation and sense-datum. But there now appears for the first time the constructional theory of matter which was later incorporated into his neutral monism developed in 'The Analysis of Mind' and modified later on.

It may be said, in short, that Russell began with three factors of sensation in 'The Problems of Philosophy', reduced them to two in 'Our Knowledge of the External World', and arrived at one in 'The Analysis of Mind' in which he produced his neutral

monism.[1] We should not, however, think that at the earlier stages Russell had already in mind neutral monism as the objective, or a tentative objective, to be achieved by the successive application of Occam's razor. In his discussions of Russell's neutral monism, W.T.Stace remarks that "one half of his neutral monism, namely the theory of matter, was thought out first, and the second half, namely the theory of mind, came seven years later".[2] He, of course, mentions in the next sentence that in 1914 Russell was not yet a neutral monist; but yet the remark in itself is misleading. For, the theory of matter in the first edition of 'Our Knowledge of the External World', to which Stace refers, was developed certainly not as "one half of his neutral monism"; it was formulated as an independent theory, and it could fit into neutral monism only when a very fundamental aspect of the theory was abandoned, this aspect being the concept of sensation as essentially a relational occurrence in which a subject is aware of an object, a concept that had to be got rid of in order to effect neutral monism. This is the reason why Russell, in order to adjust the doctrines of 'Our Knowledge of the External World' to neutral monism, brought out a revised edition of that book in 1929 in which he eliminated all references to the distinction of sensation and sense-datum which had appeared in the first edition.

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1. This is only an approximate statement. Russell, in fact, accepted neutral monism in 1919 in a paper called 'On Propositions: What They Are and How They Mean'; 'The Analysis of Mind' contains the first book-long exposition of the theory.

2. W.T.Stace, op. cit., p.357.

In 1914, Russell had no intention of giving up the psycho-physical dualism. At this stage, he not only did not accept the abolition of dualism as had been done by Mach, James and the new realists, but on the contrary he opposed it. In a paper called 'On the Nature of Acquaintance' published in The Monist in 1914, he criticised the views of these thinkers and rejected neutral monism. He first expressed some doubt in dualism, particularly in 'subject' or mental act, in his lectures on 'logical atomism' delivered in 1918 and published in The Monist during 1918-9. He was not ~~still~~ yet convinced of the rightness of neutral monism and was still urging some of the objections he had raised in 1914. But as he himself says, "soon after I gave these lectures I became convinced that William James was right in denying the relational character of sensation".[1] It is in 1919 that Russell acknowledged for the first time his acceptance of neutral monism in a paper read before the Aristotelian Society and called 'On Propositions: What They Are and How They Mean'. In it he stated his new theory in a rudimentary form, the fuller exposition of which came out in 1921 in 'The Analysis of Mind'. He then modified and completed his theory of neutral monism in 'The Analysis of Matter'(1927) and 'An Outline of Philosophy'(1927), and continued to maintain it in subsequent works.

But when Russell thus arrived at neutral monism, he had to abandon a fundamental part of his "fighting faith in refuting Berkeley and ridiculing Bergson".[2] This is the distinction of

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1. My Philosophical Development, p.134.
2. A.Wood, Bertrand Russell: the Passionate Sceptic, p.104.

sensation and sense-datum the faith in which had earlier enabled him to accuse the idealists of muddling up subject and object and to remark about Bergson that "only one who has never clearly distinguished subject and object can accept Bergson's 'intuitionism'."[1] But he had to abandon this distinction now in order to effect neutral monism. So, we can understand what Russell means when he says that he made great endeavours to believe in James' views.[2]

Of course, Russell's writings before the publication of his neutral monism are of great interest to us since they reveal how he developed the theory from his earlier positions[3]; but it is not correct that his earlier views were developed as parts of neutral monism or that his earlier views indicate anything of the sort of a possibility of development into neutral monism. In fact, Russell rejected neutral monism at the earlier stage. We shall presently consider the objections he raised against neutral monism in 1914. He then thought that these difficulties could not be overcome in any theory of neutral monism. It will, therefore, be a point for us in our discussion of various aspects of Russell's neutral monism to see how he manages these difficulties therein.

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1. The Philosophy of Bergson, p.35.

2. Logic and Knowledge, p.299.

3. Cf. W.T.Stace, op. cit., p.356.

2. Russell's Earlier Objections to Neutral Monism

'On the Nature of Acquaintance'[1] is a long paper consisting of three sections. The second section bears the title 'Neutral Monism'. In it Russell considers the theories of Mach and James generally and some aspects of the theories of the new realists. He first offers a few quotations from Mach and James in order to give an idea of what their neutral monism is, and then raises a number of objections. In the third section in which he explains the nature of acquaintance as essentially relational, he raises a further objection to neutral monism, which he emphasised even in later days, that is in 1918.

Although Russell here rejects neutral monism, he does not hesitate to recognise certain favourable aspects of it. The first and foremost of these is what he calls "the very notable simplification which it introduces".[2] He says that a fundamental dualism in experience is far less satisfactory to our intellectual desires than an apparent and artificial one, that Occam's razor prescribes neutral monism as preferable to dualism if it could be made to account for facts. He refers to a modern scientific hypothesis about matter under the influence of which it has become a 'remote supersensuous construction'. He says, "What is immediately present in sense, though obviously in some way presupposed in

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1. Reprinted in Logic and Knowledge, pp.127ff.
2. Logic and Knowledge, p.145.

physics, is studied rather in psychology than in physics. Thus we seem to have here, in sense, a neutral ground ..."[1] He even quotes in a foot-note, as an illustration of neutrality as regards sensation in orthodox philosophy, from Stout's 'Manual of Psychology' and observes that there seems to be here an acceptance as regards sensation of the doctrine of neutral monism, which Stout would, of course, be far from accepting generally.[2] We may note that when later on Russell accepts neutral monism, these considerations form part of the grounds for his doing so.

A large part of the argument in favour of neutral monism, Russell points out, consists in a polemic against the view that we know the external world through the medium of 'ideas' which are mental. He is in complete agreement with neutral monism in this respect. He does not think that, when an object is known to us, there is in our mind an 'idea' of the object, the possession of which constitutes our knowledge of the object."But when this is granted", says Russell, "neutral monism by no means follows. On the contrary, it is just at this point that neutral monism finds itself in agreement with idealism in making an assumption which I believe to be wholly false. The assumption is that, if anything is present to me, that thing must be part of my mind."[3] He points out that the idealists infer from this assumption that only ideas, not physical objects, can be immediately present to us; and that

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1. Logic and Knowledge, p.146.
2. Ibid., p.146 foot-note.
3. Ibid., p.147.

the neutral monists, finding rightly that constituents of the physical world can be immediately present to us, infer that the mental and the physical are composed of the same stuff. He remarks that as the assumption is false, both these opposing theories are false.

In refuting neutral monism Russell raises a number of objections. Firstly, he says that there is an initial difficulty in the neutral monistic view that there is nothing cognitive in the mere presence of an object to the mind. James argued that knowledge consists in the experienced relations of one content to other contents of experience. It is here that Russell feels 'an insuperable difficulty'. For him at this stage, a single presentation is certainly knowledge. He cannot think that the difference between seeing the patch of red and the patch of red being there unseen, consists in the presence or absence of relations between the patch of red and other objects of the same kind. "It seems possible to imagine a mind existing for only a fraction of a second, seeing the red, and ceasing to exist before having any other experience. But such a supposition ought, on James's theory, to be not merely improbable but meaningless."[2]

Russell is here arguing as a dualist. He is assuming mind as an entity which is there as the subject, and to which something is present as an object. But when he later accepts neutral monism, he does so by rejecting the subject, and on being

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1. Logic and Knowledge, p.147.
2. Ibid., p.148.

convinced that mere presentation or sensation is non-cognitive. We shall also find that the way in which he then explains mind leaves no room for the supposition of a mind having a single sensation.

The second difficulty that Russell mentions is as to the nature of judgement or belief, more particularly erroneous belief. He maintains that belief differs from sensation in regard to the nature of what is before the mind, that the matter of belief is always different in kind from the matter of sensation. Error is in no way analogous to hallucination; a hallucination is a fact, but not an error. When we believe 'that today is Wednesday' though in fact today is Tuesday, 'that today is Wednesday' is not a fact. He says, "What idealists have said about the creative activity of mind, about relations being due to our relating synthesis, and so on, seems to me to be true in the case of error; to me, at least, it is impossible to account for the occurrence of the false belief that to-day is Wednesday, except by invoking something not to be found in the physical world."[1]

To illustrate the argument Russell examines W.P. Montague's views as given in 'A Realistic Theory of Truth and Error', his part of the contribution in 'The New Realism'. Russell sums up these views in three statements: (a) every reality is a proposition, (b) false propositions subsist as well as true ones, and (c) the unreal is the class of false propositions. There are difficulties about Montague's position. Russell comments that for Montague and the new realists generally the typical error is the so-called

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1. Logic and Knowledge, p.149.

'illusion of sense' which, according to Russell, is no more illusory than normal sensation; that they force all familiar kinds of error, such as mistaking a day of the week or a date of a historical event, into the mould of illusion of sense "at the expense of supposing the world to be full of such entities as 'the discovery of America in 1066' — or in any year that the ignorance of schoolboys may suppose possible".[1]

Now, Russell's examination of Montague's views on error seems rather confusing as it seems to suggest that Montague was a neutral monist. But we have said[2] that Montague did not accept, and was in fact critical of, neutral monism. Accordingly, Russell's criticism here might be said to be misdirected. But his point as against neutral monism is not wholly irrelevant; and the relevance of his criticism consists in that the views, — that the true and the false are respectively the real and the unreal, and that both the real and the unreal, both true and false propositions, subsist as entities forming part of the stuff of the world, — were held not only by Montague but also by other new realists including those who were neutral monists. Russell seems right in holding that the earlier neutral monists were not able to account for the occurrence of error.

The third objection that Russell makes concerns the thought of 'non-temporal' entities, and memory. As regards non-temporal entities,— for example '2 + 2 = 4'(sometimes thought of

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1. Logic and Knowledge, p.150.

2. See above, p. 29.

and sometimes not), — Russell says that if we adopt the view that there is no 'specifically mental element' in the universe, we shall have to hold that '2 + 2 = 4' is an entity which exists at those moments of time when some one is believing it, but not at other times. He says that it is very difficult to conceive of an abstract fact of this sort actually existing at some moments only.[1]

This argument seems a bit obscure. It is not clear if Russell urges it against all the earlier neutral monists or only some of them. It is not also clear how the assumption of some 'specifically mental element' would account for the existence of the 'non-temporal entities' at moments when some one is not believing, or thinking of, them. Moreover, according to some neutral monists, especially the new realists, not only such entities as, for example, '2 + 2 = 4', but all entities are timeless, having eternal subsistence, which is not affected by their being believed or thought of. It is difficult to see how Russell's point here is really a criticism of such a position.

Russell thinks that memory raises a similar difficulty. When I remember something that happened an hour ago, my present remembering cannot be numerically identical with the event of an hour ago. "If, then, my present experience involves nothing but the object experienced, the event I am said to remember cannot itself be the object experienced when I remember. The object experienced must be something which might be called an 'idea' of the past event."[2]

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1. Logic and Knowledge, p.151.
2. Ibid., p.151.

But this, he thinks, would invite all the objections that are there to the doctrine that all our contacts with the external world occur through the medium of ideas — a doctrine against which neutral monism has arisen as a protest. If the past can never be directly experienced in memory, it becomes difficult to know how the present object of memory is at all similar to the past object. "If what is remembered actually exists in the remembering mind, its position in the time-series becomes ambiguous, and the essential pastness of the remembered object disappears."[1]

Russell is here emphasising what he calls 'the essential pastness of the remembered object'; he now thinks that the earlier neutral monists could not account for it. But as we shall see later, when he accepts neutral monism, he dispenses with this conception and develops a theory according to which it is not logically necessary for memory that the remembered event should have occurred or that the past should have existed at all.

The fourth objection that Russell urges is the question: 'How is the group of my present experiences distinguished from other things ?' It is undeniable, he says, that at any given moment some of the things of the world, but not all, are somehow collected together into a bundle consisting of what now lies within my immediate experience. He thinks that neutral monism could not give a "tenable account of the bond which unites the parts of this bundle, and the difference which marks them out from the rest of the things

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1. Logic and Knowledge, p.159.

in the world".[1] In this connection he considers Perry's discussion of the problem[2] but his explanation of it by reference to the relation of the experienced objects with the nervous system does not satisfy Russell. He therefore comments that to know what things lie within one's experience it is not necessary to know anything about one's nervous system, that people who are ignorant of physiology and of the nervous system are quite competent to know what comes within their experience. So much, Russell thinks, is clear to inspection. "But if so, then neutral monism cannot be true, for it is obliged to have recourse to extraneous considerations, such as the nervous system, in order to explain the difference between what I experience and what I do not experience, and this difference is too immediate for any explanation that neutral monism can give."[3]

This is an important objection. It remains for us to see how Russell tackles the problem in his neutral monism.

In the third section of the paper, Russell raises a fifth objection which relates to the explanation of 'this' and 'I' and 'now' — the 'emphatic particulars' as he calls them. After explaining the nature of acquaintance as essentially relational, in which a subject attends to an object, he gives an explanation of these emphatic particulars in terms of this relation. The object to which the subject attends is given the name 'this' in absence of any other; the subject attending to 'this' is called 'I', and the

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1. Logic and Knowledge, p.155.
2. R.B.Perry, Present Philosophical Tendencies, Chapter XII.
3. Logic and Knowledge, pp.157-8.

time of the things which have to 'I' the relation of presence is called the present time.[1]

Russell then retorts on neutral monism with the demand that it should produce an account of 'this' and 'I' and 'now'. He thinks that it is impossible to explain the emphatic particulars without 'the selectiveness of mind'. He therefore concludes that the consideration of emphatic particulars affords a new refutation, and 'the most conclusive one', of neutral monism.[2]

In 1918, when in 'The Philosophy of Logical Atomism' Russell expresses doubt about his earlier criticism of neutral monism, he still places 'most reliance' on the argument about emphatic particulars. He still thinks that it is extremely difficult to explain the emphatic particulars on the basis of neutral monism. He does not however lay it down dogmatically, only he does'not see how it can be done'.[3]

It may be noticed that among the above objections, all except the fourth are based on a fundamental objection, namely that neutral monism could not explain the difference between the subject and the object of experience, and for Russell at this stage this difference is a fundamental one. The fourth objection is another fundamental reason for Russell's rejection of neutral monism; and this is that this theory could not account for the fact that each person's experience is partial and not inclusive of all reality.

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1. Logic and Knowledge, p.168.
2. Ibid., p.169.
3. Ibid., p.222.

Now, notwithstanding his criticism of neutral monism, Russell even in 1914 recognised the attractive aspects of the theory. In 1918, he expressed for the first time some doubt in the 'subject' as an essential factor in sensation and showed himself as more favourably inclined to neutral monism than before. He now doubts the validity of his earlier criticism of the theory and says that "the difficulties that occur in regard to it are all of the sort that may be solved by ingenuity".[1] He says that he does not yet know whether neutral monism is true or not, but he hopes that in course of time he may be able to find its truth or falsehood. And in course of time, in fact in the course of one year, he comes to accept neutral monism as true. But when he does so, it remains for us to see how his ingenuity has enabled him to solve the difficulties which he once thought to be insoluble on the basis of neutral monism. In the discussions that follow we shall see that Russell's answers to the two fundamental objections mentioned in the preceding paragraph consist respectively in his abolition of the distinction of sensation and sense-datum and in his two ways of classifying or grouping of neutral particulars into mind and matter. We shall consider in due course these and other answers that he offers to the objections mentioned in the above pages. Meanwhile it may be well to say something about two different forms or phases of Russell's neutral monism corresponding to two different stages of its development.

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1. Logic and Knowledge, p.279.

3. Two Phases of Russell's Neutralism

Russell accepted neutralism in 1919, and since then has continued to advocate it in all his works. He did not, however, admit at once all the basic doctrines of "orthodox neutral monism"[1], that is the theory as propounded by Mach, James and the new realists. At first he accepted them only partially. His theory in its first book-long exposition in 'The Analysis of Mind' (1921) is a 'partial neutralism'. It is only from 1924 onwards that he has maintained a theory of 'complete neutral monism', the full exposition of which appeared in 'The Analysis of Matter' and 'An Outline of Philosophy', both published in 1927. In all his later works he has held the latter form of the theory. Of course, in these later works, particularly 'An Inquiry into Meaning and Truth' and 'Human Knowledge', he has almost entirely been occupied with the consideration of epistemological problems. But he has not said in them anything that contradicts his metaphysical theory of neutral monism; on the contrary the metaphysics he has incidentally developed, or referred to, in them is the theory of neutral monism as produced in the earlier works. In his latest books, such as 'Portraits from Memory'[2] and 'My Philosophical Development', he retains the same theory and advocates it at some length.

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1. M.Weitz, op. cit., p.72.
2. The chapter on 'Mind and Matter'.

In his neutral monism, Russell tries to harmonise two different tendencies, one in psychology and the other in physics, with which he finds himself in sympathy. Modern psychologists, particularly the behaviourists, have adopted a materialistic position, making psychology more and more dependent on physiology and external observation. They think that all mental phenomena can be explained in terms of the observed behaviour of the individual under various circumstances, without the supposition of 'consciousness' as an entity or a fundamental characteristic of mental phenomena. They take matter as more 'solid and indubitable'than mind, and physics as the most fundamental science now in existence. On the other hand, the physicists, especially Einstein and other relativity-theorists, have divested the so-called 'matter' of the quality of substance. "Their world consists of 'events', from which 'matter' is derived as a logical construction."[1] Thus Russell points out that under the influence of modern psychology mind has become less mental, and that under the influence of modern physics matter has become less material.[2]

The materialistic tendency of psychology and the non-materialistic tendency of physics close up the gap between mind and matter. This opens, Russell thinks, a way for bringing mind and matter together under a common head, for reconciling psychology and physics, not by subsuming one under the other as is done by the idealists and the materialists, but by finding a common

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1. The Analysis of Mind, p.5.
2. Ibid., p.5; The Analysis of Matter, p.7.

subject-matter for both the sciences. He finds that the view which reconciles these tendencies is the theory of neutral monism as suggested by Mach, James and others. Following them, he declares that the dualism of mind and matter is not metaphysically valid, that the stuff of which the world is composed is neither mind nor matter, but something which is more primitive than both and thus neutral between them. Both mind and matter are composite, and "the stuff of which they are compounded lies in a sense between them, in a sense above them both, like a common ancestor".[1]

Although Russell's neutral monism is thus primarily concerned with a reconciliation of physics and psychology, it is, in fact, the result of a synthesis of four different sciences, namely physics, physiology, psychology and mathematical logic.[2] Mathematical logic is used to replace the so-called permanent substances by creating 'logical structures' out of particulars obtained from an analysis of data taken from the other sciences.[3] The world thus conceived by Russell does not consist of any mysterious entity, like the 'thing-in-itself' or some unknown and unknowable substance. The stuff of which the world is composed consists of verifiable particulars. Mind and matter are not single simple existing things; they are complexes constructed out of the neutral particulars.

We have said that Russell did not at first accept all

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1. The Analysis of Mind, pp.10-11.
2. My Philosophical Development, p.16.
3. Ibid., p.16.

the basic doctrines of 'orthodox neutral monism'; his neutral monism has two distinct phases, an early phase of 'partial neutralism' and a later phase of 'complete neutral monism'. We have seen that a theory of neutral monism contains three main parts relating to the conception of the neutral stuff, of matter, and of mind respectively. As the constructions of matter and mind are bound to be coloured by the conception of the nature of the stuff out of which they are constructed, the difference in the conception of the stuff of the world may be taken as a good ground for a classification of the theories of neutral monism. On this basis it seems possible to distinguish two kinds of the theory, namely partial and complete neutralism. 'Partial neutralism' would state that the stuff of the world is partly neutral, and partly mental or partly physical or both. The neutral part of the stuff would equally go into the construction of both mind and matter. Mind would consist partly of neutral entities and partly of mental entities; and matter would consist partly of neutral entities and partly of physical entities. 'Complete neutral monism', on the other hand, would state that the whole of the stuff of the world is neutral, mind and matter both being composed entirely of the neutral stuff.

This classification of neutralism as partial and complete is peculiarly necessary for an understanding of the development and contents of Russell's theory; for his views expressed at different stages exemplify the forms. In 'The Analysis of Mind', his theory is only a 'partial neutralism', whereas in the later works, his theory is a 'complete neutral monism'.

The 'orthodox neutral monism' may be summed up in three basic doctrines: (1) that the stuff of the world is neither mental nor physical, but neutral; (2) that ~~any~~ every neutral entity can be a member of either of the groups forming mind and matter, that is, can be treated by both psychology and physics; (3) that the dualism in the world is not of entities, but of causal laws. It would be clear from the discussions below that Russell accepts (3) from the beginning. So far as (1) is concerned, he at first accepts it only partially, and then at a later stage completely. This is the reason for our assertion that his theory has been developed in two phases exemplifying the two forms of neutralism as indicated above. As to (2), Russell has never admitted it as such; — the reason for this will appear in the next chapter.[1]

In 'The Analysis of Mind' Russell declares that the dualism of mind and matter "cannot be allowed as metaphysically valid", although there is a certain dualism, not ultimate and "not primarily as to the stuff of the world, but as to causal laws".[2] This shows his acceptance of the third doctrine of the orthodox theory, which relates to dualism of causal laws. But as regards the first doctrine, Russell states:

> 'My own belief ..... is that James is right in rejecting consciousness as an entity, and that the American 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. But I

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1. See below, pp.97-8.
2. The Analysis of Mind, p.137.

> should say that images belong only to the mental world, while those occurrences (if any) which do not form part of any "experience" belong only to the physical world. There are ..... different kinds of causal laws, one belonging to physics and the other to psychology ....Sensations are subject to both kinds of laws and are therefore truly "neutral" ..... But entities subject only to physical laws, or only to psychological laws, are not neutral, and may be called respectively purely material and purely mental.'[1]

Here Russell's attitude is quite clear. He recognises three kinds of stuff, namely sensations, images and "those occurrences which do not form part of any experience". He agrees with the new realists only in admitting the neutrality of sensations, while he is quite emphatic in his disagreement with them as regards the neutrality of images and the occurrences not forming part of any experience. Moreover, in this book he draws a distinction between 'active' and 'passive' places of particulars and makes it a basis for distinguishing the physical from the mental.[2] He says, "Some particulars, such as images, have no active place, and therefore belong exclusively to psychology."[3]

It follows, therefore, that at this stage Russell admits the first doctrine of the orthodox theory only partially. For him now, only a part of the stuff of the world, namely sensations, are neutral , whereas images and some other occurrences which are part of the stuff of the world are not neutral. Accordingly, the theory of 'The Analysis of Mind' is only a 'partial neutralism'.

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1. The Analysis of Mind, pp.25-6. For similar statements see also 'On Propositions', Logic and Knowledge, pp.299, 306.

2. See below, pp.172, 196.

3. The Analysis of Mind, p.301.

Here I am in complete agreement with Stace who in considering the theory of 'The Analysis of Mind' says that "the statement that Russell's theory is not pure neutral monism is not in any sense a criticism of it. It is mere description. Russell simply thinks that neutral monism is partly right and partly wrong."[1] The truth of this is evident from the fact that Russell in his reply to Stace does not object to the above remarks.

Russell's position in 'The Analysis of Mind' is then only partially neutral monistic. But it is also partially dualistic, though not in the Cartesian sense of dualism of substance. There is still something which is purely mental, and something which is purely physical. Such an admixture of monistic and dualistic elements might well be true; but it will not be proper to call it 'monism'. The name 'partial neutral monism' would thus be misleading. In order to avoid this, we have called it 'partial neutralism'.

Russell's views as expressed at this stage involve some difficulties in respect of their different aspects. We shall consider them in due course. We may now simply note that Russell soon realised some of these difficulties and therefore modified his views. He also came to believe that all entities forming the stuff of the world are neutral ; and thus he accepted the first doctrine of the orthodox theory wholly. This new belief was first expressed in 1924 in an article called 'Logical Atomism' and was later fully developed in 'The Analysis of Matter'(1927)and

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1. W.T.Stace, op. cit., p.363.

'An Outline of Philosophy'(1927), and retained in all subsequent works.

The theory of neutral monism as Russell holds at this later stage states that entities forming the ultimate stuff are all neutral. They are sensations (or 'percepts' as they are now called), images and unperceived particulars. All of them are now declared to be neutral; and thus the theory comes to take the form of 'complete neutral monism' in the sense as indicated above. Russell generally calls all neutral entities 'events'; so his theory has sometimes been called 'eventism'.[1]

It should be noted here that when Russell arrives at 'complete neutral monism' he does not do so by wholly rejecting the earlier partial theory but by adding to the neutral part of the earlier theory the neutrality of other parts along with certain other modifications of the earlier position.Of Course, these other modifications in some cases are of such fundamental nature that these themselves may be taken as sufficient grounds for distinguishing Russell's earlier and later theories of neutral monism. Russell's conception of neutral particulars as events and their classification, his acceptance of the causal theory of perception, the concept of the unperceived events and the corresponding changes in his construction of matter and mind are some of the important modifications that characterise his theory of 'complete neutral monism'. In view,

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1. M.Weitz,op. cit.,p.73.

of this,it seems clear that we must anyhow recognise two distinct phases of Russell's neutral monism; and the distinction of his theory as partial and complete is only one convenient way of bringing out this point.

The importance of making this distinction does not lie only in that it shows how Russell has gradually developed the theory stage by stage, that is, how his philosophic mind has been at work in respect of the theory at different times. This in itself is indeed very important for an understanding of his theory. But there is another important thing about it. The failure to recognise the two stages and forms of Russell's theory has sometimes misled his critics.This has happened in at least two ways. Firstly,the later form of the theory which we have called 'complete neutral monism' has been declared to be not a theory of neutral monism at all. Stace,for one, has done this in his article already referred to ; and Russell himself has objected to this way of treating his theory of neutral monism.[1] Russell has very emphatically stated in 'The Analysis of Matter'[2] and 'An Outline of Philosophy'[3]that the theory he advocates in them is neutral monism.There seems to be no reason why the theories of these later books should not be considered as neutral monistic ; on the contrary, these are the books that in fact contain the final version of Russell's neutral monism.

1.The Philosophy of Bertrand Russell,p.707.
2. Op. cit,pp.10, 382ff.
3. Op. cit.,pp.214ff, 293, 303.

The second way in which the failure to recognise the two forms of Russell's theory has misled critics may be stated as follows. If our analysis of the two forms is correct, it is clear that for the purpose of rejecting Russell's neutral monism criticism should properly be directed against the later form of the theory, and not against the earlier theory of 'partial neutralism'; for a criticism of the earlier theory may not be a criticism of the later theory at all, unless, of course, the criticism is about a point clearly shown to be common in the two forms. It follows that the rejection of Russell's neutral monism as a whole on the basis of a critique of 'any' aspect of the earlier theory may be entirely mistaken. Such a mistake is to be found in A. Quinton's rejection of neutral monism in general and Russell's theory in particular.[1] Quinton rejects Russell's neutral monism on the basis of his criticism of the theory of 'The Analysis of Mind'. But we shall see later on[2] that the objections he raises do not in any way affect Russell's later position of complete neutral monism, and that accordingly his criticism entirely fails to serve its purpose. The important thing, therefore, to note here is that if the stages of the development of Russell's neutral monism along with the corresponding forms of the theory were properly recognised and kept in mind while criticising it, some criticisms would not have been made at all.

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1. A.Quinton, 'Mind and Matter', Brain and Mind (J.R.Smythies ed.), pp.216-7.
2. See below, pp. 194-5.

4. Logical Atomism and Neutral Monism

In 1924 Russell wrote:

> 'The philosophy which I advocate is generally regarded as a species of realism. ..... I do not regard the issue between realists and their opponents as a fundamental one ..... I hold that logic is what is fundamental in philosophy, and that schools should be characterised rather by their logic than by their metaphysic. My own logic is atomic, and it is this aspect upon which I should wish to lay stress. Therefore I prefer to describe my philosophy as 'logical atomism' rather than as 'realism', whether with or without some prefixed adjectives.'[1]

These statements appear in the opening paragraph of an article called 'Logical Atomism' which contains the first brief exposition of Russell's 'complete neutral monism', fully developed in 'The Analysis of Matter', 'An Outline of Philosophy' and other works. The general characterisation of his philosophy as indicated in these remarks has been repeatedly stressed by him. This shows how we should understand the relation of his metaphysics with his philosophy. Logical atomism is the 'logical' name of his philosophy in general whereas neutral monism is the ontological name of the atomistic metaphysics which he ultimately came to develop. In fact, neutral monism is the metaphysical theory which he finally produced from the position of logical atomism.

Russell describes his logical atomism as a "certain kind of logical doctrine, and on the basis of this a certain kind of metaphysic".[2] It is a philosophy of logic; it is 'atomistic' because Russell believes that the world is composed of many separate things,

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1. Logic and knowledge, p.323.
2. Ibid.,p.178.

and'logical' because "the atoms that I wish to arrive at as the sort of last residue in analysis are logical atoms and not physical atoms".[1] The atoms are not obtained by physical analysis or partition, but by logical analysis. Thus Russell's logical atomism is his philosophy of logical analysis.

Ever since Russell successfully applied his method of analysis in logic and mathematics, he has been gradually applying it in dealing with more and more problems of philosophy, and this has finally resulted in the production of his logical atomism. It is therefore natural to find some aspects of the atomistic doctrines in his philosophy from the beginning;[2] but these were systematically developed first in a series of lectures under the title 'The Philosophy of Logical Atomism'(1918), and then in almost every subsequent work. Here again as in the case of many aspects of his philosophy, his views have undergone modifications at various stages. The comparatively simple form of the theories of 1918 has gradually been abandoned, and logical atomism as advocated in later works, such as 'An Inquiry into Meaning and Truth' and 'Human Knowledge', has taken a complex form.

The doctrines of Russell's logical atomism (together with

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1. Logic and Knowledge, pp.178-9.

2. Russell says that he adopted logical atomism in the years 1899-1900. He says that this "was a revolution; subsequent changes have been of the nature of an evolution."— My Philosophical Development, p.11.

those of Wittgenstein[1]) represent a very influential step in the development of contemporary philosophy. These doctrines with the stages of their development and modifications should therefore make an interesting and profitable subject of study and research.[2] The purpose of the present work would not, however, allow such an undertaking here. I shall therefore content myself with merely indicating very briefly (and perhaps quite insufficiently) how Russell has developed his neutral monism from the position of his early logical atomism.

From experience in logic and mathematics, Russell found that many things, hitherto supposed to be simple entities with neat logical properties, can be replaced by logical structures composed of entities which have not such neat properties. The supposed entities are always inferred; and Russell found that propositions in which they occur can be interpreted without making the inference, that the ground for the inference thus fails and the body of/propositions is secured against the need of a doubtful step.[3] This is a case of the principle of economy known as Occam's

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1. Wittgenstein developed his logical atomism in 'Tractatus Logico-Philosophicus', to which Russell wrote an introduction. The relation of the two philosophers is one of mutual influence; consequently there are some similarities between their theories of logical atomism. Some comparative references may be found in Russell's introduction to the 'Tractatus' and 'My Philosophical Development'; also in, D.F.Pears, Bertrand Russell and the British Tradition in Philosophy; G.E.M.Anscombe, Introduction to Wittgenstein's Tractatus; M.Black, A Companion to Wittgenstein's Tractatus; J.Griffin, Wittgenstein's Logical Atomiam; etc.

2. D.F.Pears' book mentioned above is an admirable account of the early development of Russell's logical atomism during 1905-1919, with comparative references to Hume, Bradley and Wittgenstein.

3. Logic and Knowledge, p.326.

razor. In a general sense the principle means that as few entities as possible are to be assumed in explaining the facts of the world; replacing inferred entities by logical structures is only a special use of it. Russell states the special form of the principle as this: "Wherever possible, substitute constructions out of known entities for inferences to unknown entities."[1] He adopts generally the method of "constructions versus inferences" as a maxim of interpretation in philosophy. He conceives the business of philosophy as being "essentially that of logical analysis, followed by logical synthesis".[2] But analysis and construction require materials. Where are we to look for the materials or data for our philosophy ? It is an important methodological principle with Russell that we should take the data from science, for he thinks that science is more likely to be true than common-sense and philosophy.[3] Russell, however, thinks that the question of the materials of analysis and construction "requires as a preliminary a discussion of logic and language and their relation to what they try to represent". This is because "the influence of language on philosophy has been profound and almost unrecognised"[4] throughout ages.[5]

The purpose of the discussion of language is twofold: first, to free philosophy from the bad influences of logical defects

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1. Logic and Knowledge, p.326. For a clarification of this statement, see below, pp.150ff.
2. Ibid., p.341.
3. Ibid., p.339.
4. Ibid., p.330.
5. The emphasis in contemporary philosophy on linguistic analysis is very largely due to the influence of Russell's philosophy of language.

of ordinary language; and secondly, to suggest, by inquiring the requirements of a logically perfect language, "what sort of a structure we may reasonably suppose the world to have".[1] As to the bad influence of ordinary language, Russell emphasises that syntax and vocabulary provokes erroneous metaphysical beliefs. Syntax induces the subject-predicate logic, with substance-attribute metaphysics, while vocabulary, by promoting the assumption of pseudo-entities, encourages "a kind of platonic pluralism of things and ideas".[2] Russell's analysis of language is an attempt at remedying the defects that arise out of our "giving metaphysical importance to the accidents of our language".[3]

One of the remedies for the logical defects of language is provided by Russell's 'theory of types'.[4] This theory is a cure for the puzzles and contradictions that arise out of the use of symbols or words of different types in the same context. It was first produced for solving logical and mathematical paradoxes, and then extended to ordinary language. It puts a sort of restriction upon the kind of symbols or words that we may use in a given context. Symbols that can be inserted into some one context are said to belong to the same logical type. There arises thus a sort of separation of entities into a 'logical hierarchy of types', whose members are individuals, functions of individuals, functions of

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1. Logic and Knowledge, p.338.

2. Ibid., p.331. 3. The Analysis of Mind, p.192.

4. This theory was first produced as an appendix to The Principles of Mathematics in 1903, and was then reproduced in Principia Mathematica, The Philosophy of Logical Atomism, and other works.

functions of individuals, and so on; similar extensional hierarchies are there in respect of classes and relations as well.[1] The following passage shows what Russell means by a logical type:

> 'The definition of a logical type is as follows: A and B are of the same logical type if, and only if, given any fact of which A is a constituent, there is a corresponding fact which has B as a constituent, which either results by substituting B for A, or is the negation of what so results. To take an illustration, Socrates and Aristotle are of the same type, because "Socrates was a philosopher" and "Aristotle was a philosopher" are both facts; Socrates and Caligula are of the same type, because "Socrates was a philosopher" and "Caligula was not a philosopher" are both facts. To love and to kill are of the same type, because "Plato loved Socrates" and "Plato did not kill Socrates" are both facts.'[2]

The theory of types asserts that sentences often become nonsensical because of the substitution in the same context words of different logical types;[3] that "a word or symbol may form part of a significant proposition, and in this sense have meaning, without being always able to be substituted for another word or symbol in the same or some other proposition without producing nonsense".[4] Thus 'Brutus killed Caesar' is significant, but 'Killed killed Caesar' is nonsense. We cannot substitute 'killed' for 'Brutus', and therefore they are of different logical types. Some important cases of difference of types are those of substance and attribute, terms and relations, and simples and complexes. Thus,

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1. The theory of types in its form specifically as a hierarchy of classes is not being discussed here.For this Russell's works may be consulted.
2. Logic and Knowledge, p.332.
3. Gilbert Ryle's concept of 'category-mistake' is essentially connected with Russell's concept of logical types; cf. The Concept of Mind, pp.17ff.(Penguin edition).
4. Logic and Knowledge, p.334.

for example, 'There are simples' and 'There are complexes' must use the words 'there are' in different senses. But if we use the words 'there are' in the sense which they have in the statement 'There are simples', the form of words 'there are(or are not) complexes' is neither true nor false, but meaningless.[1]

The theory of types cannot, however, cure all the philosophical difficulties that arise out of the logical defects of ordinary language. One important instance of such difficulty concerns what Russell calls 'definite descriptions' i.e. phrases of the form 'the so and so', such as 'the author of Waverley', 'the present king of France', and the like. There has always been difficulty in interpreting propositions containing definite descriptions, such as 'Scott is the author of Waverley' or 'The present king of France does not exist'. Russell's theory of descriptions[2] is designed to meet this.

Russell points out that the difficulty arises through supposing that 'the author of Waverley' or 'the present king of France' is a name, and refers to an entity which is the subject of the proposition and has some sort of 'being'or existence. 'Scott is the author of Waverley' asserts an identity. But 'the author of Waverley' is not a name, and we cannot substitute for it a proper name without making the proposition a tautology. Thus if we substitute Scott for 'the author of Waverley', we get 'Scott is Scott', which is tautology and is a different proposition from the original

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1. Logic and Knowledge, p.337.
2. First produced in 'On Denoting'(1905)— reprinted in Logic and Knowledge —, elaborated in Principia Mathematica, and reproduced in a modified form in Introduction to Mathematical Philosophy, and The Philosophy of Logical Atomism.

one. This becomes clear from the fact that we can ask whether Scott is the author of Waverley, but we cannot significantly ask whether Scott is Scott. It follows that in the original proposition, the phrase 'the author of Waverley' is not a name and cannot be replaced by a name.[1]

Moreover, 'The golden mountain exists' and 'The round square does not exist' are not the same statement; but different statements. This seems to suggest that the golden mountain is one thing and the round square is another thing, although neither exists. Again, of the two propositions, 'The golden mountain exists' and 'The golden mountain does not exist', one must be true according to the law of excluded middle, and yet there is no such thing as the golden mountain. These puzzles have led many philosophers to invent a whole realm of 'unreal' entities having the objective status of 'being'.[2] Russell's theory of descriptions solves the puzzles by showing that when a proposition containing a phrase of the form 'the so and so' is rightly analysed, the phrase 'the so and so' disappears. Thus, for example, the statement 'The golden mountain does not exist' is interpreted as saying, "There is no entity C such that 'X is golden and mountainous' is true when X is C, but not otherwise."[3] With this interpretation the puzzle as to the use and meaning of the description 'the golden mountain' disappears; for it

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1. Logic and Knowledge, pp.47ff, 244ff.
2. Meinong is a classical source of this view; cf. J.N.Findlay, Meinong's Theory of Objects and Values, chapter II.
3. History of Western Philosophy, p.785 (New edition, 1961).

is shown that the phrase is not a name and is not a constituent of the proposition, i.e. there is no constituent of the proposition which corresponds to the description as a whole.

The theory of descriptions thus provides a method of interpreting or translating propositions in order to get rid of phrases or symbols which are not really names and thereby to get rid of unreal entities. By descriptions Russell includes not only such phrases as 'the author of Waverly' and 'the present king of France', but also all names of ordinary language, such as Socrates, Piccadilly, the table, the chair, etc. He says that these ordinary names are not really names, but each "a sort of truncated description".[1]

Now, the extension of the theory of descriptions to ordinary names of common-sense objects involves a different level of analysis. When, for example, a proposition containing the phrase 'the author of Waverly' is analysed, it is done in terms of ordinary common-sense objects.But the analysis of the names of the common-sense objects involves a deep level analysis of these objects in terms of particulars which are sense-data with which we are directly acquainted in experience, and which are of a different kind from ordinary things.D.F.Pears calls the two levels of analysis the 'horizontal' and 'deep' analyses respectively.[2] The deep

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1. Logic and Knowledge, p.243.
2. D.F.Pears, op. cit., pp.16f. Cf. also, J.O.Urmson, Philosophical Analysis, pp.27ff.

analysis involves the metaphysical analysis of common-sense things and persons in terms of 'basic realities' or ultimate particulars composing the world; it involves replacing inferred common-sense substances by logical structures out of basic metapysical entities.

The ordinary proper names, according to Russell, are really descriptions. The only proper names that are recognised by him are what he calls 'the logically proper names'; these are 'this' and 'that' which the individuals apply to the particulars which are the immediate objects of their experience. At a later stage Russell gives up even these. He says, "All the well-known difficulties of substance remain so long as we retain a 'this' which is not a bundle of qualities, as appears at once when we try to explain how we distinguish between 'this' and 'that' otherwise than by difference of qualities."[1] He declares that theoretically there is no need of proper names but only names of qualities and relations.[2]

There seems to be a wide range of agreement among philosophers[3] as regards the success of Russell's theory of descriptions in so far as the ordinary horizontal level of analysis is concerned. But its success has sometimes been questioned in respect of the deep

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1. The Philosophy of Bertrand Russell, p.686.

2. An Inquiry into Meaning and Truth, ch.6; Human Knowledge, p.321; My Philosophical Development, p.170.
There is a controversy about the elimination of proper names; cf. P.F.Strawson, 'On Referring', reprinted in A.Flew(ed.), Essays in Conceptual Analysis, pp.40ff; W.V.Quine, Methods of Logic, pp.218ff; From a Logical Point of View, pp.7f,167.

3. Recently there have been some criticisms of the theory on general lines; but these are not very serious. A brief assessment of the main points may be found in A.J.Ayer, 'An Appraisal of Bertrand Russell's Philosophy', in R.Schoenman(ed.), Bertrand Russell — Philosopher of the Century, pp.169-70.

level analysis which involves logical construction of common-sense objects and translation of statements about them. We shall come to the objections later on; meanwhile we may continue with our account of Russell's logical atomism.

Russell's analysis of language and meaning, then, purports to avoid the logical defects of ordinary language in order to determine the structure of the world. The basic unit of discourse is proposition. Therefore the discussions are primarily concerned with the objective reference of propositions and their analysis into constituents. For a long time Russell, like Wittgenstein, believed that a true proposition must reproduce the structure of the fact to which it refers; but finally he gave up this idea,[1] although he never minimised the importance of the analysis of language for sound metaphysical thought.

The proposition is a complex symbol consisting of parts which are also symbols. The objective references of propositions are called 'facts'. If there is a fact corresponding to a proposition, it is true; if not, it is false. In 'The Philosophy of Logical Atomism', the facts and propositions are classified into various types. The simplest are the 'atomic propositions' and 'atomic facts'. Atomic facts are composed of terms and relations or qualities. They form a hierarchy according to the number of terms involved. The simplest atomic fact consists of one term and a quality; the next, two terms and a diadic relation; the third, three terms and a triadic relation; and so on.

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1. My Philosophical Development, pp.113-4.

There are more complex propositions than the atomic ones. These are called 'molecular' propositions. A molecular proposition is formed by joining two or more atomic propositions by logical conjunctions, such as 'if-then', 'or', 'and'. Molecular propositions are called the truth- functions of the component atomic propositions, and are true or false according as the component propositions are true or false. There are no molecular facts corresponding to molecular propositions; the facts they refer to are those referred to by the component atomic propositions. Russell recognises at this stage other kinds of propositions also; these are called 'existence propositions'(with 'existence facts'),'general propositions' (with 'general facts') and 'negative propositions' (with'negative facts'). Russell's views on the different types of propositions have undergone changes. We shall not, however, consider them; Russell's discussions may be referred to for further treatment. We shall carry on our discussions in connection with his analysis of atomic propositions and atomic facts which are the basic type anyway.

An atomic proposition contains symbols or words standing for the terms and relations that make the corresponding atomic fact. What are these terms ? Russell initially believed that the terms are what are known in direct presentation or by acquaintance.[1] Things that are known by acquaintance are called 'particulars'. Russell later on modified this position, and declared that

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1. Logic and Knowledge, p.201.

particulars, also called 'simples', are not experienced as such, but are known only inferentially as the limit of analysis.[1] A particular is defined as a term of a relation in an atomic fact. Words that stand for particulars are called proper names; a proper name is defined as a word denoting a particular.[2]

As facts are composed of parts, they are complexes; whereas particulars are simples. And complexes and simples are of different logical types. The proper symbols for facts are propositions, and those for particulars are proper names. Facts can only be asserted (or denied), whereas particulars can only be named. Ordinary names, we have seen, are not names in the strict logical sense. They are, for Russell, descriptions; and what they describe "are not particulars but complicated systems of classes or series".[3] In this early formulation of logical atomism, Russell accepts as 'logically proper names' only the words 'this' and 'that' which he thinks can only be used by the speaker for a particular he is acquainted with at the moment.

Particulars, being the simples, stand each entirely alone; they are wholly self-subsistent. They have the quality of self-subsistence that used to belong to 'substance' but not the quality of persistence through time. A particular, according to Russell, lasts for a very short time, and in this respect it differs from the 'old substance'.[4] The particulars have a sort of being which does not belong to objects of other types. Qualities

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1. Logic and Knowledge, p.337.
2. Ibid.,pp.199-200. 3. Ibid.,pp.200-1. 4. Ibid.,pp.201-4.

and relations, which are the other factors besides particulars that make the atomic facts, are of a different type. They differ from the simples or particulars "by the fact that they suggest a structure, and that there can be no significant symbol which symbolizes them in isolation",[1] and also that they cannot be the subject of the proposition in which they occur. Thus the proper symbol for 'yellow' is not the single word 'yellow' but the propositional function 'x is yellow'. The same is true of relations, and this shows that qualities and relations involve a complexity which particulars do not.[2] These are Russell's early views; but he has finally given up the idea of particulars as simples, which he now conceives as complexes of qualities and relations only; he now accepts no proper names but only the names of qualities and relations.

The logical doctrines thus developed from the analysis of language and meaning, of propositions and facts, provide Russell with a framework for analysis of the problems of traditional philosophy. The doctrines provide what he calls 'philosophical grammar', and he thinks that all traditional metaphysics is filled with mistakes due to 'bad grammar', that is, "due to a failure to make the kind of distinctions in what we may call philosophical grammar with which we have been concerned."[3]

One bearing of the above analysis on metaphysics is that

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1. Logic and Knowledge, p.337.
2. Ibid.,p.338.
3. Ibid., p.269.

"you can get down in theory, if not in practice, to ultimate simples, out of which the world is built, and that those simples have a kind of reality not belonging to anything else".[1] It is also clear that anything that is not a simple is complex and as such a construction. We thus find here a metaphysical 'structure' of the world, on the basis of which we can now analyse the data that physical and psychological sciences may offer, in order to determine what particulars or simples are there in the universe and what can be represented as constructions. This last analysis enables us to organise the particulars under the ontological categories, namely 'mental', 'material' and 'neutral'.

Russell's application of the method of analysis and construction to physics resulted in the construction of physical objects out of particulars or simples alone. In 'Our Knowledge of the External World', he shows that the only particulars that go into the construction of the external world are what he then calls 'sense-data'. In 'The Philosophy of Logical Atomism', he gives an analysis of matter that is similar to the one given in 'Our Knowledge of the External World'.

In the latter work Russell maintains the distinction of the mental and the physical in respect of the constituents of the world. Sensations are then distinguished from sense-data, subject from object; and thus mind and the mental are treated as being fundamentally different from matter and the material. In 'The

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1. Logic and Knowledge, p.270.

Philosophy of Logical Atomism', Russell doubts this distinction, and even produces an analysis of 'person' to show that it is possible to represent a person as a construction out of experiences without reference to an 'ego'.[1] But he is not yet sure if such a construction of a person is right, whether the distinction of subject and object, of sensation and sense-datum, is valid. In other words, he is not sure if neutral monism is true. But he thinks that his new logical doctrines have given him an instrument of interpretation which would soon enable him to determine the truth or falsehood of the theory. And really he soon came to abolish the distinction of sensation and sense-datum, and thus effected his 'partial neutralism' first in 'On Proposition: What They Are and How They Mean', and then in 'The Analysis of Mind'. The former is an article which as a work on proposition must be taken as being a continuation of the analysis undertaken in 'The Philosophy of Logical Atomism'. In fact, it begins with a reference to that earlier work, assumes the logical doctrines provided therein[2] and undertakes a further analysis of propositions and facts. As the result of this, the doubts that were there in the earlier work are now settled; 'ego' or 'consciousness' is rejected as an entity, and sensations are declared to be identical with sense-data and are said to be the neutral particulars. Other particulars that are admitted are 'images'(purely mental) and some physical aspects. Thus, neutralism is produced in the context or

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1. Logic and Knowledge, pp.276ff.
2. Ibid., p.285 foot-note.

within the framework of logical atomism. 'The Analysis of Mind' is a work that only elaborates the theory contained in this article by applying the method of analysis and construction to various mental phenomena. The 'complete neutral monism' which was developed later on is, we have seen, continuous with his 'partial neutralism'. This, again, first appeared in an article called 'Logical Atomism'. In it Russell calls the particulars or simples 'events', and represents both mind and matter as constructions out of events which are all neutral entities. This theory of 'eventism' or 'complete neutral monism' has been developed and maintained in all his later works.

It may now be clear that the metaphysics which Russell has thus finally produced can be characterised in two ways, namely, from the point of view of the logical structure of the world, and from the point of view of the ontological categories of mental, physical and neutral as applied to the ultimate realities or constituents of the world. In the former sense, Russell's theory is 'logical atomism', because it states that the world is composed of many separate entities which are the logical atoms as explained above. In the latter sense, this theory is properly called 'neutral monism', because it states that the logical atoms are neither mental nor physical, but are all of the same category, 'neutral'. Russell does not, however, confine the name 'logical atomism' to his metaphysics alone; he uses it to include other aspects of his philosophy. In this sense 'logical atomism' has a wider application than 'neutral monism' which applies only to his metaphysics.

CHAPTER III

THE THEORY OF NEUTRAL PARTICULARS

We noted earlier that a theory of neutral monism must have a theory of the neutral stuff, a theory of matter and a theory of mind. In what follows, we shall consider in some details the three parts of Russell's neutral monism with special reference to the development of his views in regard to them. In the present chapter we shall discuss the different aspects of his theory of the neutral stuff, and in the two subsequent chapters we shall take up his theories of matter and mind separately. Finally, we shall consider in a concluding chapter some special problems concerning the mind-body relation and the concept of a person.

1. Psycho-physical Dualism in Sensation

Russell arrived at his neutral monism by abolishing the relational character of sensation, that is, by abandoning the psycho-physical dualism of sensation and sense-datum, by giving up the dualism of subject and object of sensation, and by thus repudiating 'consciousness' as part of the stuff of the world. We say 'the psycho-physical dualism of sensation and sense-datum' -- because in his earlier writings in which he upheld the relational character of sensation, Russell very clearly maintained the view that the dualism was between a mental factor, namely sensation,

mental act or subject, and a physical factor, namely sense-datum or object of sensation. It is the abolition of this dualism which enabled him to effect his neutral monism.

In 'Our Knowledge of the External World' and other writings of this stage, Russell gave up the three-factor theory of sensation which he himself had maintained in 'The Problems of Philosophy'. He then rejected what was called the 'content' and retained only the subject or mental act of sensation and the sense-datum. In 'On the Nature of Acquaintance' referred to above, he argued against the content.[1] This and two other articles, namely 'The Relation of Sense-data to Physics' (1914)[2] and 'The Ultimate Constituents of Matter'(1915)[3], contain essentially the same views as expressed in 'Our Knowledge of the External World'(1914). In these articles, he emphatically maintained the psycho-physical dualism of sensation and sense-datum.

Whereas sensation has traditionally been regarded as mental, there have been controversies among philosophers regarding the nature of the immediate object of sensation. The Berkeleian tradition has been to regard as mental not only the 'act' of sensation, such as seeing, hearing, etc., but also the object of sensation, such as colour, sound, etc. Now, such things as colour, sound, smell, taste, etc., which are the immediate objects of

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1. Logic and Knowledge, pp.169ff.
2. Reprinted in Mysticism and Logic, ch. VIII.
3. Reprinted in Mysticism and Logic, ch. VII.

sensation are what Moore and Russell call 'sense-data'. While the Berkeleians declare them to be mental, Russell in the articles mentioned above takes the opposite view and declares them to be fully physical. The term 'physical' is to be understood, according to Russell, as meaning "what is dealt with in physics".[1] He calls a particular 'mental' "when it is aware of something", and he calls a fact 'mental' "when it contains a mental particular as a constituent".[2] He says, "I regard sense-data as not mental, and as being, in fact, part of the actual subject-matter of physics."[3]

In 'The relation of Sense-data to Physics', Russell argues against the view that sense-data are subjective and mental. He says that the view that sense-data are mental is derived partly from their causal dependence on sense-organs, nerves and brain and other conditions of the perceiving subject, and partly from a failure to distinguish between sense-data and sensations. He maintains that the arguments for the subjectivity of sense-data on grounds of their causal dependence on physiological conditions do not prove anything beyond "physiological subjectivity".[4] But physiological subjectivity of sense-data is of the same nature as their causal dependence on the intervening fog or smoke or coloured glass; and neither makes sense-data in any sense mental. He says:

> ' Logically a sense-datum is an object, a particular of which the subject is aware. It does not contain the subject as a

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1. Mysticism and Logic, p.150.
2. Ibid., p.150.
3. Ibid., p.149.
4. Ibid., p.149.

> part, as for example beliefs and volitions do. The existence of the sense-datum is therefore not logically dependent upon that of the subject. ..... By a sensation I mean the fact consisting in the subject's awareness of the sense-datum. ..... The sense-datum, on the other hand, stands over against subject as that external object of which in sensation the subject is aware. ..... So soon, therefore, as sense-data are clearly distinguished from sensations, and as their subjectivity is recognised to be physiological ....., the chief obstacles in the way of regarding them as physical are removed.'[1]

In 'The Ultimate Constituents of Matter' which is a declared defence of psycho-physical dualism, Russell maintains the same views as above regarding the status of sense-data. Sense-data, he says, are "purely physical and among the ultimate constituents of matter".[2] In support of his position, he offers arguments including one refuting Berkeley's claim that objects of sense are not outside the percipient mind.[3] He contends that it is an error to say that what we perceive through any of our senses is mental. He argues that seeing, hearing, and generally perceiving through senses are mental occurrences just as believing, doubting, wishing and willing are mental occurrences. But from this, he says, it does not follow that what is seen or heard or perceived through senses is mental.

In reply to the question whether colour, sound or any other secondary quality is inside or outside the mind, Russell says that colours and noises are not mental in the sense of having that intrinsic peculiarity which belongs to beliefs and wishes and

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1. Mysticism and Logic, p.152.
2. Ibid., p.128.
3. Ibid., pp.132-3.

volitions but not to the physical world. He maintains that if by saying that something is in the mind we mean that it has a certain recognisable intrinsic characteristic such as belongs to thoughts and desires and volitions, then "it must be maintained on grounds of immediate inspection that objects of sense are not in any mind".[1] To put it in the words of H.A.Prichard, "What Mr. Russell holds is that smells, colours, sounds, etc., have an independent existence of their own, in the way in which common-sense thinks of bodies as having an independent existence."[2]

This is, in short, the position that Russell was maintaining as regards the status of sense-data. Sense-data were now regarded as fully physical,[3] and sensations as fully mental, —— a position which he had to abandon in order to arrive at neutral monism.

2. Abolition of Dualism: Identification of Sensation and Sense-datum

Russell maintained the psycho-physical dualism of sensation and sense-datum right upto 1918. But after that his views underwent a very great change. In 1919, he rejected the relational character of sensation; and this enabled him to effect neutral monism. As he

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1. Mysticism and Logic, p.133.
2. H.A.Prichard, 'Mr. Russell on Our Knowledge of the External World', Mind, XXIV, 1915, p.151.
3. In 'The Analysis of Mind'(p.143) Russell seems to refer to the articles mentioned above as he says, "I shall not trouble you now with the grounds for holding as against Berkeley that the patch of colour is physical; I have set them before .....".

himself says,

> 'So long as the subject was retained there was a mental entity to which there was nothing analogous in the material world, but if sensations are occurrences which are not essentially relational, there is not the same need to regard mental and physical occurrences as fundamentally different. It becomes possible to regard both mind and a piece of matter as logical constructions formed out of materials not differing vitally and sometimes actually identical.'[1]

So long as Russell was adhering to the relational theory of sensation, every sensation, for him, was itself a cognition. Thus mere seeing some colour or hearing a sound was itself knowledge. But in his neutral monism, he regards mere sensation as non-cognitive. He says, "When, say, I see a person I know coming towards me in the street, it seems as though the mere seeing were knowledge. It is of course undeniable that knowledge comes through the seeing, but I think it is a mistake to regard the mere seeing itself as knowledge."[2] If mere seeing, or any other mere sensation, is regarded as knowledge, it seems natural, Russell points out,[3] to distinguish the seeing from what is seen; and this admits the distinction of the subject or mental act, and the object or sense-datum, the subject having a relation to the object, a relation that may be called 'awareness'. But he is now convinced that mere sensation is not cognitive, and that the distinction of the subject and the object of sensation, in other words the psycho-physical dualism of sensation and sense-datum, is wholly untenable.

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1. My Philosophical Development, p.139.
2. The Analysis of Mind, p.141. In 'My Philosophical Development' Russell quotes the long paragraph in which this passage occurs.
3. The Analysis of Mind, p.141.

It may be noticed that Russell is doing two things at a time, namely (a) he rejects the cognitive nature of sensation, and (b) abandons the distinction of sensation and sense-datum and thus identifies them. The cognitive and the relational characters of sensation are, however, so intertwined in his arguments that they may be said to be two aspects of the same character, and the rejection of the one means the rejection of the other also; for the rejection of cognition in sensation means the rejection of awareness or consciousness in it, and if consciousness or awareness is not there in sensation it cannot include in it the subject or mental act, and hence no dualism remains.

The main argument that Russell offers in rejecting the cognitive and relational nature of sensation is that of the abolition of the subject or mental act of sensation. He rejects the subject of sensation and thereby arrives at the conception of sensation as a neutral particular which is the subject-matter of both physics and psychology. In 'The Analysis of Mind', Russell refers to the Brentano-Meinong theory of perception and says that his view has grown out of various views that result from modifications of the three-fold analysis of presentation into act, content and object.[1] He rejected the 'content' in his earlier works; he emphasises this once again.[2] As regards the 'subject' or 'mental act' he now argues that "the act seems unnecessary and fictitious .....Empirically, I cannot discover anything corresponding to the

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1. The Analysis of Mind, pp.14-20.

2. Ibid., pp.18-20, 21-22. Russell rejects it in respect of sensation or presentation, but not in respect of memory and thought.

supposed act, and theoretically I cannot see that it is indispensable."[1] Russell declares that the theory which analyses a presentation into act and object no longer satisfies him. He says:

> 'The act, or subject, is schematically convenient, but not empirically discoverable. It seems to serve the same sort of purpose as is served by points and instants, by numbers and particles and the rest of the apparatus of mathematics. All these things have to be constructed, not postulated: they are not of the stuff of the world..... The same seems to be true of the subject, and I am at a loss to discover any actual phenomenon which could be called an "act" and could be regarded as a constituent of a presentation.'[2]

The subject, according to Russell, is introduced not because observation reveals it, but because it is linguistically convenient and apparently demanded by grammar. The function it performs can always be performed by classes or series or other logical constructions, "consisting of less dubious entities".[3] The grammatical sentence, such as 'I think so and so ', suggests that 'I' stands for a person, and that thinking is the act of the person. But Russell thinks that the person "is not an ingredient in the single thought: he is rather constituted by relations of the thoughts to each other and to the body".[4] He says that the grammatical forms, such as 'I think' and 'you think', are misleading, and that we should better say 'It thinks in me', or better still 'There is a thought in me'.Meinong's act is not empirically observable or even logically deducible from what we can observe.It is what Russell

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1. The Analysis of Mind, pp.17-8.
2. 'On Propositions', Logic and Knowledge, p.305.
3. The Analysis of Mind, pp.141-2.
4. Ibid., p. 18.

calls the ghost of the subject or what once was the full-blooded soul.[1] The subject, according to him, is "a completely gratuitous assumption" and must therefore be rejected as an actual ingredient of the world.[2]

> 'But when we do this, the possibility of distinguishing the sensation from the sense-datum vanishes. Accordingly the sensation that we have when we see a patch of colour simply is that patch of colour, an actual constituent of the physical world, and part of what physics is concerned with. A patch of colour is certainly not knowledge, and therefore we cannot say that pure sensation is cognitive.'[3]

Russell says that all knowledge comes through sensations; in other words, sensation, through its psychological effects, causes cognition by virtue of its correlations with other things and by giving rise to images and memories, but in itself it is not cognitive.[4]

When Russell was earlier holding the relational theory of sensation, he accepted Brentano's definition of mental phenomena as the "phenomena which intentionally contain an object".[5] He now argues against it and says that it is incapable of maintaining itself either against an analytic scrutiny or against a host of facts supplied by psycho-analysis and animal psychology.[6] Having rejected this view in general, he rejects it in the particular case of sensation also.[7] He says that the argument that formerly made him accept the view was, historically, directed against idealism; the emphatic part of it was the assertion, as against Berkeley, that sound, colour, etc., are physical, not psychical. But now he

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1. The Analysis of Mind, p. 18.
2. Ibid., p. 142.
3. Ibid., p. 142.
4. See below, pp. 232ff.
5. Ibid., pp. 15, 142.
6. Ibid., p. 15.
7. Ibid., p. 142.

argues that from that colour is physical it does not follow that it is not also psychical, unless we assume that the physical and the psychical cannot overlap, which he no longer considers a valid assumption. He says, "If we admit — as I think we should — that the patch of colour may be both physical and psychical, the reason for distinguishing the sense-datum from the sensation disappears, and we may say that the patch of colour and our sensation in seeing it are identical."[1]

3. Sensations as Neutral Particulars

Russell thus identifies sensation and sense-datum. In this respect he, in fact, maintains the same view as that of Mach, James, the new realists and Dewey[2]. He acknowledges this and even quotes from their works to support his position. Sensation and sense-datum are one and the same thing. So, the earlier idea of 'sense-datum' as opposed to sensation is abandoned. Accordingly, in 'The Analysis of Mind' Russell uses the name 'sensation' for such things as, for example, coloured patches and sounds as well as seeing coloured patches and hearing sounds. In his later works he uses the name 'percept' for the same sort of things as 'sensation' in the earlier work stands for.

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1. The Analysis of Mind, p.143.
2. J.Dewey, Essaya in Experimental Logic, pp.253,262.

Sensations, according to Russell, are non-cognitive, but supply data for our knowledge of the physical world including our own bodies. They are what is common to the mental and the physical world; they are defined as'the intersection of mind and matter'.[1] They are neutral particulars and are among the ultimate stuff of the world. They are transient entities, occurring at the place of the perceiving organism, in fact in our brain, and lasting each for a very short time. Russell calls them 'aspects' and 'appearances'. They are existent particulars; they are in themselves neither mental, nor material, but form both mind and matter. They fall into groups in two different ways, one group forming 'a piece of matter' and the other 'mind'.

Russell brings out his position with the famous illustration of stellar photography.[2] If a photographic plate is exposed to a portion of the sky on a clear night, it takes photographs of the portion of the sky with the stars. Taking one particular star, we are to conclude according to the laws of the continuity of physical processes that at the place where the plate is, and at all places between it and the star, something is happening which is specially connected with the star. If there are many such plates, each plate will photograph the star somewhat differently. These photographs are the different appearances of the star at different places. Russell calls them 'particulars','aspects' or 'events'. Again, each plate will photograph many other things simultaneously with the

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1. The Analysis of Mind, p.144; An Outline of Philosophy,p.217.
2. The Analysis of Mind, pp.99f.

given star. It follows that "in every place at all times" a vast multiplicity of things (i.e. particulars) must be happening.[1]

Now, the particulars may be classified in two ways:[2]

(1) We can collect together all the happenings at different places as are usually taken to be emanating from the same object; as in the above example, all the appearances of the star at different places.

(2) We can collect together all the happenings that take place in one place; as in the above example, all the appearances of different stars and other things at the place of one particular plate.

In the first collection we have the group of all the aspects radiating from one common centre. This bundle of particulars constitutes a momentary physical object,— the particular star in the above example. In the second collection, aspects of different things combine at one place; this is what Russell calls a 'perspective'. One particular of this second group, namely the appearance of the given star at the given plate, will also belong to the first group, which constitutes the momentary star. Thus every particular belongs at once to two groups or systems of particulars, one constituting the physical object and the other a perspective. Thus a material object and a perspective are both composed of the same particulars, which are among the ultimate

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1. The Analysis of Mind, p.100; My Philosophical Development, p.26.
2. The Analysis of Mind, pp.100ff.

stuff of the world. They differ from one another not by virtue of difference of stuff, but by virtue of different arrangements of the same stuff.

Every perspective is a view of the world from a particular place, and there are as many perspectives in the world as there are places from where there can be views of the world. No perspective contains any place in common with that contained by any other perspective. Each perspective consists entirely of particulars which are appearances from one point of view; and this may be called their subjectivity.

Now, if we have at the place of the photographic plate an organism with sense-organs, nerves and brain, what happens at this place are not photographs but what we call sensations or perceptions of the stars and other things. These are nothing but the appearances of these objects at this place. One of these sensations will be the appearance of the given star. This particular sensation will at once belong to two different sets of particulars, namely the group that makes the material object (the star), and the group which (together with other entities, viz., images) make a mind. As a member of the former group it is usually called a sense-datum, and as a member of the latter a sensation. But it is one and the same particular; therefore the distinction of sensation and sense-datum vanishes. It is the same neutral particular taken twice over in two different contexts. In one it is a constituent of a material thing and in another it is

a constituent of a mind. The difference between what is called a mind and what is called an object presented to a mind is, therefore, not one of substance but of arrangement of particulars that form the stuff of the world.

Thus, according to Russell, sensations are neutral particulars. Generally, everything that comes to us through senses is sensation, and we have to include such things as headache, muscular strains, in short all bodily sensations. But in actual experience as when we see something or hear a sound, what we have is perception and not mere sensation. In fact "so much interpretation, so much of habitual correlation, is mixed up with all such experiences, that the core of pure sensation is only to be extracted by careful investigation. .... In order, therefore, to arrive at what really is sensation in an occurrence ..... we have to pare away all that is due to habit or expectation or interpretation."[1] Sensation, accordingly, is that part of perception which is due only to stimulation; it is the non-inferred element in experience. So, Russell defines a sensation "as the non-mnemic elements in a perception".[2] And it is this non-inferred, non-mnemic element that is non-cognitive.

Russell accepts in his theory of neutral stuff not only our own sensations but also the sensations of other people. The world view that would follow if we were to develop it out of our own sensations only would be solipcism. But solipcism, however

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1. The Analysis of Mind, pp.139-40.
2. Ibid., p.139.

consistent it may logically be, is psychologically impossible to believe. It contradicts common-sense and denies the picture of the world as science gives us.[1] The usual sort of considerations that show solipcism to be unbelievable are sufficient reason, for Russell, for dismissing it.

In fact, we live our life not in a private world confined to ourselves alone, but in a common world in which we communicate with other people. When we see a physical object, we also believe that other people suitably situated can see the same thing. Verification of statements about the external world requires us to have reports from people with whom we can communicate, and it is thus necessary to accept the use of testimony.

The sensations of other people are not directly perceived by us. Our knowledge of them is indirect and inferential. We depend on analogy for the knowledge of other people's sensations. In this connection Russell accepts the usual analogical arguments for our belief in other minds and their sensations and images.[2]

Now, the arguments Russell offers in connection with the neutral character of sensations give rise to some problems which may be briefly noted here. Russell has dispensed with the 'subject' of sensation. Sensation is not knowledge, and hence no distinction of 'subject' (the knower) and 'object' (the known) in it. That sensation by itself is not knowledge seems pretty established; and the notion of subject as 'mental act' seems to have lost favour

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1. The Analysis of Matter, pp.213, 398; Human Knowledge, p.180.
2. Our Knowledge of the External World, second ed.,pp.101ff; The Analysis of Matter, pp.201ff; Human Knowledge,pp.205-9.

with most philosophers. But knowledge is a fact; its very nature is such that it involves a distinction of the subject and the object, of the knower and the known. Although it is possible for Russell to eliminate the distinction from sensation which he takes as non-cognitive, he cannot possibly do so in case of perception and other processes which are cognitive. He has, therefore, to re-introduce it in his theory. He realises this; but the subject as he conceives it is a construction and not a single substance or ego.

Russell argues that in a statement like 'I think' or 'He thinks', 'I' or 'He' suggests that thinking is an act of a person; but that in fact the person is not an ingredient in a single thought. He suggests that instead of saying 'I think', it is better to say 'It thinks in me', etc. Now, it is difficult to see how shifting from 'I' to 'me', from 'he' to 'him', can possibly avoid the suggestion of a person. Even though it may be possible to avoid the subject by such change of the grammatical structure of statements, it would not certainly be possible to avoid the suggestion of the person. In fact, the concept of person must somehow and somewhere come up in the scheme of an explanation of the world. Russell, of course, recognises this. What he intends to do in the above argument is to dispense with the concept of person as the subject of a single thought or sensation, and thus to show that it is not among the ultimate constituents of the world. Both subject and person, according to him, are constructions out of the ultimate stuff; and we shall have occasion to

consider them in due course.

Now, in declaring sensations as neutral particulars Russell gives a very special and peculiar meaning to the word 'sensation', very different from the ordinary meaning of it. Usually it has always meant something connected with consciousness. But now it is stripped of all such connections and given a status neutral between mind and matter. But when this is done, Russell should have, as has been suggested,[1] abandoned the term 'sensation' and given a more neutral name to what it now stands for. Russell, of course, might reply that the thing he calls sensation is the very thing which other people call sensation, but that they are mistaken in regarding it as mental, and that he is therefore right in retaining the word while freeing it from its false associations. It may not, however, be a sufficient answer. As Dorward puts it, "When they call a thing sensation, they mean to imply that it is mental; and if they were convinced that they were mistaken in supposing it to be mental, they would probably say, not 'Well, you have now convinced me that sensations are not mental', but 'I now see that what I thought to be mental is really not so, and I was therefore mistaken in calling it a sensation'."[2]

William James used the term 'experience' for his neutral entities. Russell objected to it saying that the use of the term 'experience' indicated a lingering influence of idealism.[3] James

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1. A.Dorward, 'Critical Notice of Russell's Analysis of Mind', Mind, 1922, p.92.
2. Ibid., p.92.
3. Logic and Knowledge, p.145.

might now retort in the same words against Russell in respect of his use of the term 'sensation' for his neutral particulars.

This, however, is not a grave criticism. It is a quarrel about names; and names do not matter so long as we use them each with a specific meaning, for a particular thing or a specific kind of things. Neither James nor Russell seems to have failed in this respect.

4. Events as Neutral Particulars

Russell, at the later stage of his neutral monism, calls the neutral particulars 'events'.[1] He uses the term 'event' to include not only sensations or percepts but also images and unperceived particulars. At all stages of his neutralism he has accepted sensations, images and unperceived particulars as forming the stuff of the world. But while he has always taken sensations or percepts as neutral, he has not always regarded the others as being so. In 'The Analysis of Mind', images are purely mental and unperceived particulars (sensibilia) are purely physical. But at the later stage he takes all particulars as neutral and gives them the common name 'event'. Moreover, he now includes as unperceived events not only 'sensibilia' but also'unperceivable' events. He

1. For example, The Analysis of Matter, especially chapters XX, XXIII, XXV, XXVI, XXVII, XXXVII, XXXVIII; An Outline of Philosophy, chapters X through XV, XVI, XVII; Human Knowledge, chapters, IV & VII of part III, and chapters V & VII of part IV; Portraits from Memory, chapter on 'Mind and Matter'; My Philosophical Development, chapter II.

thus tries to make his theory more scientific than before and give it a sort of completeness by declaring all constituents of the world to be neutral. This is the reason why we have called this later theory 'complete neutral monism' and his earlier theory 'partial neutralism'.

In his complete neutral monism Russell makes a number of developments from his earlier position. One of these concerns the nature of percepts. Things like seeing a patch of colour or hearing a sound (as well as coloured patches or sounds) which he earlier called sensations are now called percepts. But there is a little difference in the meaning he now attaches to them. Sensations were regarded as the purely non-mnemic, non-inferred elements in perception, which are entirely due to stimulation. But as in normal adult life such pure sensations are not obtainable and as by conscious attention we cannot know them in their native character, he thinks that we may take the basic element in presentation as not the theoretical core of sensation, but the percept which includes some amount of inference due to physiological habits. The percept is not entirely non-inferred and non-mnemic, but is due to stimulation and unconscious 'physiological' inference. It is that actual part in perception, which does not contain conscious inference or interpretation. With this difference in mind, we may use both the terms 'sensation'and 'percept' in presenting Russell's later views in which sensations are to be taken in the sense of percepts.

Another development is about the conception of causal laws. Russell had earlier distinguished two kinds of causal laws, namely physical and psychological. He retains the distinction, but now thinks that physical causation is universal. In his earlier theory, only sensations were subject to both kinds of causal laws; whereas images were subject to only psychological causation and unperceived particulars to only physical causation. He now argues that all things whether mental or physical fall under the physical laws of causation. Even images are now subject to physical causation. So he says, "Mind is merely a cross-section in a stream of physical causation, and there is nothing odd about its being both an effect and a cause in the physical world."[1] He thinks that we cannot escape from the universality of physical causation.[2]

We should notice that, although the above statements tend towards physicalism or causal materialism, Russell does not in fact accept this position. He does not think that mental causal laws are all reducible to physical causal laws. On the contrary, he maintains that we have knowledge in psychology which can never form part of physics.[3] In fact, for him, the criterion of the two ways of grouping of events into mind and matter is that of the two kinds of causal laws.[4] What he is asserting is that

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1. An Outline of Philosophy, p. 156.
2. The Analysis of Matter, p. 393.
3. Ibid., pp. 392-3; An Outline of Philosophy, p. 300; Human Knowledge, pp. 58, 65.
4. For further consideration of this distinction and an epistemological basis of it, see below, pp. 271-7.

the neutral events may fall under two kinds of causal laws, that while all events are known to be subject to physical causation, only some are known to be subject to psychological causation. Accordingly, while we can say that all events are physical, we cannot say that all events are, in fact, mental. Only percepts and images are known to be mental events, but "we do not know enough of the intrinsic character of events outside us to say whether it does or does not differ from that of mental events".[1] As a matter of fact, some events may always remain outside the scope of mental causation; and in so far as Russell now accepts 'unperceivable' events, these seem to be for ever outside the scope of the causal laws of psychology. This is the reason why we have said that Russell has not accepted the second doctrine of orthodox neutral monism, according to which any neutral event can be treated by both psychology and physics.[2]

Events in themselves are neither mental nor physical but neutral. 'Neutrality' is the non-relational characteristic of events. It does not consist in their being subject to 'both' physical and mental causation; whereas 'mentality' and 'physicality' are relational characteristics depending on the relevant causal connections of events. Every event is a "logically self-subsistent entity".[3] It can be treated in two different ways, namely (a) in isolation, and (b) in its causal relations to other

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1. An Outline of Philosophy, p.222.
2. See above, p.55.
3. An Outline of Philosophy, p.293.

events. This is a distinction of type; and it holds between neutrality on the one hand and mentality and/or physicality on the other. Whereas neutrality is the first-order characteristic of an event-in-isolation, mentality and/or physicality are the second-order characteristics of an event-in-causal-relation. Thus two or more neutral events may have a causal relation to one another, which is studied by psychology; they are then mental. Again, two or more neutral events may have a causal relation which is studied by physics; they are then physical. This interpretation reconciles the apparent inconsistency in Russell's writings in which in speaking about events he uses all the three expressions, namely 'neutral events', 'mental events' and 'physical events'. This also explains how an event may not fall under both the causal laws and yet can be treated as neutral.

The above interpretation of the neutrality of events also brings out a difference between Russell's earlier theory of partial neutralism and the later theory of complete neutral monism. In the earlier theory, a particular is neutral only when it is "subject to both kinds of laws", and only sensations satisfy this condition and are therefore "truly neutral".[1] But in the later theory as explained above, neutrality is not a matter of causal laws. Morris Weitz[2] offers a similar interpretation as above in connection with Russell's neutralism in general including the

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1. See above, pp.55-6.
2. M.Weitz, op. cit., pp.72-3.

theory of 'The Analysis of Mind'. But in view of the conception of the'truly neutral' as given in that earlier book, it seems impossible to apply the above interpretation to the theory of that book and regard it as complete neutral monism.

Another aspect of causation that is emphasised at this later stage is what is called 'the irreversibility of physical process', or 'the directed causality'. Russell points out that in classical physics everything was reversible, and that modern physics has abandoned this view. He says:

> 'Speaking generally, processes in the physical world all have a certain direction which makes a distinction between cause and effect that was absent in classical dynamics. I think that the space-time order of the physical world involves the directed causality. It is on this ground that I maintain an opinion which all other philosophers find shocking: namely that people's thoughts are in their heads.'[1]

One very important change that Russell makes at this later stage is his adoption of the 'causal theory of perception' , which forms a basis for inclusion of unperceived events which are the physical causes of percepts and are among the stuff of the world. This theory holds that apart from the subjective factors influencing our perceptions, external events cause our perceptions, and that the existence of these causes can be inferred from the perceptions. It is a theory which, Russell thinks, is in keeping with the common-sense view of perception that there are external occurrences which cause our perceptions. Common-sense holds that perception reveals external objects to us directly. But science

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1. My Philosophical Development, p.25.

holds that perception occurs as an event at the end of a long causal chain; our knowledge of the physical object thus becomes indirect and inferential. But in both cases, says Russell,[1]

> 'There is the assertion that it (perception) has external causes as to which something can be inferred from it .... (The theory) depends upon postulates which have little more than a pragmatic justification. It has, however, all the merits of a good scientific theory ..... namely that it links together a number of known facts, that it does not have any demonstrable false consequences, and that it sometimes enables us to make predictions which are subsequently verified. All these tests the causal theory fulfils..'

Russell points out that physics demands the causal theory of perception: "Epistemologically, physics might be expected to collapse if perceptions have no external causes."[2] This theory, Russell feels, cannot be disproved, and it offers an alternative to both solipcism and phenomenalism as a way out of the difficulties involved in the common-sense notion of the world.

These are primarily the grounds on which Russell accepts the causal theory of perception. According to this theory, " a sensation is merely a link in a chain of physical causation", it is one of a vast series of connected events, travelling out from a centre according to some mathematical laws, in virtue of which the sensation enables us to know a good deal about the events elsewhere.[3] Previously Russell did not think that the notion of 'cause' was reliable enough to guarantee inferences to unperceived

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1. The Analysis of Matter, pp.197, 199.
2. Ibid., p.197.
3. An Outline of Philosophy, p.156.

events. But he now accepts and uses the causal theory as the principal ground for inferring the existence of not only the 'sensibilia' but also further unperceivable events.[1]

Russell now calls the ultimate stuff of the world 'events'. He says, "Everything in the world is composed of 'events'; that, at least, is the thesis I wish to maintain."[2] Events are existent particulars, and mind and matter are complex constructions out of them. Every event occupies a small finite amount of space-time: it has a small finite duration and a small finite extension in space. It is neither impenetrable nor indestructible.[3] Every event in space-time is overlapped by other events; we know this empirically in our experiences. And according to physics, events in the form of electrons and protons annihilate each other. No event is permanent; but given any event or group of events we find at a neighbouring place in space-time a very similar event or group of events.[4] This is a character which, we shall see, accounts for what Russell calls a 'quasi-permanence' of things and persons. The world consists of more or less independent chains of events called 'causal lines'.[5] A causal line is a 'temporal series of events' so related that given some of them we can infer something about others. The chains of events are not completely independent of each other, because they can influence each other; there is the fact of 'mutual modification'.[6]

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1. See below, pp.135-6.
2. An Outline of Philosophy, p.287.
3. Ibid., pp.287, 290-1; The Analysis of Matter, p.386.
4. An Outline of Philosophy, p.124; Human Knowledge, p.308.
5. The Analysis of Matter, pp.313-4; Human Knowledge, pp.333f., 476f.
6. The Analysis of Matter, p.314; Human Knowledge, pp.490-1.

Chains of events are continuous so that there is no 'action at a distance'.[1]

This last point marks an important difference from Russell's earlier position. In 'The Analysis of Mind', he accepted 'action at a distance' in time in connection with 'mnemic causation'. This is now rejected mainly on the ground of causal continuity.

Now, one point seems in order here. According to Russell, an event is a happening which has a small duration. But whatever happening lasts for a period of time might be called a 'process'. But 'process' as a term seems quite unsuitable for what Russell calls 'event'. For, a process seems to involve among other things a passage of time in which changes occur; we say, 'something undergoes a process of change' and so on. When a certain state of affair is changed into (i.e. succeeded by) another state of affair, there is a process. Process is thus a complex of successive states of affair. But what Russell calls events are not such complexes of successive states, but the states themselves. The term 'event' itself is not, however, unambiguous. We may call the Battle of Waterloo an event. "But in a complex event of this sort, there are parts which have spatio-temporal and causal relations to each other; no single entity devoid of physical structure persists throughout the whole period."[2] But if we are to explain the structure of the world, we have according to Russell to distinguish between objects having physical (i.e. spatio-temporal) structure and the component

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1. The Analysis of Matter, pp.328,359,380; Human Knowledge, pp.509ff.
2. The Analysis of Matter, p.293.

parts of such structure. He uses the term 'event' for these parts which do not have internal spatio-temporal structure. An event in this sense is what he sometimes calls a 'minimal event'[1] which has an upper time-limit and does not last "for more than a few seconds at most".[2] In this connection his views differ from those of Whitehead for whom events have no time-limits.[3]

Russell thus uses the term 'event' in a technical sense. Events, for him, are the ultimate neutral constituents of the world. He uses the terms 'simple', 'ultimate constituent' and 'particular' in a relative sense, that is , to mean that they are the limit of analysis depending on the state of our knowledge. He does not mean that particulars or events are incapable of further analysis, but that we cannot at present analyse them. He has held this view from the beginning of his neutral monism.[4] He at first accepts particulars or events as relative simples or relative ultimate constituents of the world. But later on he produces a further analysis of events and particulars.[5] According to this later analysis, events are complexes of qualities and relations. Russell says that qualities may recur at different times and different places.[6] A particular shade of red, for example, may be found to occur on different occasions. Thus the same quality may recur, but it is possible to

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1. An Outline of Philosophy, p.288.
2. The Analysis of Matter, p.294.
3. Ibid., pp.292-4.
4. The Analysis of Mind, p.124.
5. Human Knowledge, pp.97-8, 313ff.
6. Russell does not regard qualities as universals. See his discussion in The Philosophy of Bertrand Russell, pp.685, 714.

obtain 'unique' events. The shade of red does not occur all alone; it occurs as a member of a complex of compresent qualities, such as size, shape, hardness, etc., and relations, such as 'to the right of', 'to the left of', etc. Any such complex of compresent qualities and relations will be unique; "the complex is something new over and above the qualities" and "can be mentioned in a way which is not reducible to a statement about any or all its constituents".[1]

Such a complex may be called an 'event', and it has the property of "non-recurrence".[2] This new analysis of events does not introduce any conflict with the results Russell has obtained from employing events and particulars. In fact, he himself has continued his discussions generally in terms of events in 'Human Knowledge' and the subsequent works.

5. Sensations and Organism

In Russell's theory, sensations or percepts are dependent on both physical and physiological conditions. When, for example, we see the sun, what happens is somewhat as follows: The light from the sun travels over the intervening space for about eight minutes and meets the eye where it produces its effect which produces its effect on the optic nerve, and this in turn produces its effect in

1. Human Knowledge, p.325.
2. Ibid., p.322.

some visual centre in the brain. The process that starts from the place where common-sense takes the sun to be, ends in producing the effect in the brain, which is called 'seeing the sun'. It is thus clear that sensations or percepts are dependent on the sense-organs, nerves and brain, that is, on the percipient's body. The sense-organs, nerves and brain form part of the intervening medium and distort the appearance.

The dependence of sensations on the organism may be considered in respect of at least three points, namely (1) the role of organism in Russell's explanation of sensations, (2) the location of sensations or percepts in the brain, and (3) the subjectivity of sensations. We shall discuss these three questions separately, the first in this section and the second and the third in the two subsequent sections in this order.

Sensations, according to Russell, are as much dependent on physiological conditions as on physical conditions. The physiological factors, namely the sense-organs, nerves and brain, may therefore be said to be fundamental in the explanation of sensations. In respect of the role assigned to the physiological factors, C. D. Broad has offered a criticism in his 'Scientific Thought', on which A. O. Lovejoy in 'The Revolt against Dualism' lays much emphasis. Broad remarks that Russell has not treated the observer's body in terms of his general theory of physical objects. The body is a physical object and must, according to Russell's theory, consist of a set of groups, each composed of correlated aspects or appearances. "I am

not sure", says Broad, "that his theory does not at present owe some of its plausibility to the fact that, while we read his exposition, we think of our own bodies (and perhaps of other media, like mirrors and coloured glass) as physical objects in the non-Russellian sense, and of all other pieces of matter as physical objects in the Russellian sense."[1]

Broad has made this criticism against Russell's views as expressed in 'The Analysis of Mind'. But as to the role of the organism in respect of sensation or percept Russell holds the same views in his later works as well, and therefore this criticism, if valid, may be said to apply to his theory generally irrespective of the stages of the development of his neutral monism.

Russell has offered a reply to this criticism in 'The Analysis of Matter'. He points out that the criticism arises from a failure to notice that in the theory of perception a physical object has a 'twofold character'. On the one hand, it is a group of appearances or events; and on the other hand, it has an influence upon the appearances of other objects, particularly appearances in its neighbourhood, making them different from what they would have been if they followed the laws of perspective only.[2] He says,

> 'The sense-organs have only this second function to perform in the theory of perception, while the object perceived has the first function. It is this difference of function, in the theory of perception, which makes it seem as if we were treating the percipient's body more realistically than external objects. But this is only a matter of degree. The

1. C.D.Broad, Scientific Thought, pp.533-4.

2. The Analysis of Matter, p.259.

> appearance of an external object is modified also by other external objects — e.g. by blue spectacles or by a microscope. I conceive the part played by the eye as essentially analogous to that played by a microscope; and I take the same view as to the part played by the optic nerve.'[1]

Now, Lovejoy rejects this reply as unsatisfactory.[2] He points out that in Russell's theory a physical object cannot have a neighbourhood and that only aspects or appearances can be neighbours to other aspects. He says that the reply misses the point at issue. For, the objection is that any objects, — sense-organs, nerves, mirrors or coloured glasses, — in so far as they are regarded as distorting factors, have not been taken "as having the properties of a piece of matter" in the Russellian sense. "It is no reply to this remark that a 'physical object' (in the theory) has 'a twofold character'; that fact is the point of departure of the objection."[3] The essence of the objection, he points out, is that Russell has ascribed 'two implicitly incongruous characters' to physical objects. To say that one character or function belongs to the physical object as perceived and the other to the object that is a distorting factor, does not answer the objection; for the sense-organs or any other media such as mirrors and coloured glasses, can also be perceived and therefore "must have both characters — one set qua physical 'in the Russellian sense', the other qua causal — and yet cannot have both consistently. ..... The secret of the new theory ..... consisted in operating with two distinct

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1. The Analysis of Matter, pp.259-60.
2. The Revolt against Dualism, pp.259-61.
3. Ibid., p.260

and opposed concepts of a 'physical object', using one or the other as the exigencies of the argument required."[1]

C.E.M. Joad offers a similar criticism wherein he remarks that "an analysis of objects of perception in terms of physics can only be given provided we refrain from applying it to the sense-organs by and through which we perceive them", and that if we push the analysis further and resolve the sense-organs into their 'atomic components' the explanation of the facts of perception becomes impossible.[2]

Now, the issues involved in the above arguments and counter-arguments relate as much to the theory of sensations as to the theory of the construction of matter. We have not yet considered the latter in detail; but what has been said above[3] will not perhaps be insufficient for at least understanding the situation.

The objection raised by Broad and emphasised by Lovejoy and Joad is not without its justification altogether. In fact, in explaining sensations or percepts, Russell very often speaks as if the sense-organs, nerves and brain, and also other distorting media were each a simple physical unit and could act as such. This is unfortunate; it is all the more so because his own reply in itself does very little to dispel the difficulty. Lovejoy seems to be right in so far as he says that speaking of 'a twofold character' of a physical object is useless.

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1. A.O.Lovejoy, The Revolt against Dualism, p.261.
2. C.E.M.Joad, Philosophical Aspects of Modern Science, p.106.
3. See above, pp.88-90.

The situation, however, is not as bad as it looks. In explaining a certain fact or thing it may be sometimes necessary and also legitimate to use certain concepts or things as part of the explanatory mechanism. Such concepts or things may or may not be real; even if real, their nature need not be explained in course of the particular explanation concerned any more than to be defined in terms of the functions they perform as part of the explanatory mechanism. This is so, because we cannot explain the facts or things of the world all at a time. It is, therefore, possible that, when Russell speaks of the function of the 'media', he has in mind the idea of this sort of explanatory function that they may be said to perform in the theory of perception. But as Russell speaks of the other character or function of a physical object as a group of appearances or connected events, he is talking ontology. If they could be kept separate, the two characters would perhaps be quite understandable. But in Russell's philosophy, they have not been, and cannot be, kept separate. They have been combined, and combined in a way so as to give rise to a confusion of epistemological and ontological arguments.

What Russell has done is this: He explains sensations or appearances by using the sense-organs, nerves and brain as also other 'media' as part of the explanatory mechanism. He then constructs physical objects out of such sensations or appearances, declaring also that all the media — i.e. parts of the mechanism of the former explanation — are constructions out of sensations.

What he should do now is to bring the two together so as to obtain a final explanation of sensations in which the 'media' as units would disappear and would be replaced by particulars or appearances that form the constructions of things which have previously been so used as though they were real units. Until this is done, the whole position remains confused and involved in a vicious circle.

Now, it is not the case that Russell does not realise the importance of what we have said above. In fact, he has at times made such statements as to give us the final position that we are looking for. As an early example we may quote him from 'Mysticism and Logic' where in discussing the notion of 'causal dependence' he writes:

> 'The fact that there exists a chain of antecedents which makes our seeing dependent upon the eye and nerves and brain does not even tend to show that there is not another chain of antecedents in which the eye and nerves and brain as physical things are ignored. If we are to escape from the dilemma which seemed to arise out of the physiological causation of what we see when we say we see the sun, we must find, at least in theory, a way of stating causal laws for the physical world, in which the units are not material things, such as the eye and nerves and brain, but momentary particulars of the same sort as our momentary visual object when we look at the sun. The sun itself and the eyes and nerves and brain must be regarded as assemblages of momentary particulars. ..... Thus the sun of eight minutes ago is a class of particulars ..... The various particulars constituting this class will be correlated with each other by a certain continuity and certain intrinsic laws of variation as we pass outward from the centre, together with certain modifications correlated extrinsically with other particulars which are not members of this class. It is these extrinsic modifications which represent the sort of facts, that in our former account appeared as the influence of the eye and nerves in modifying the appearance of the sun.'[1]

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1. Mysticism and Logic, pp.136-7.

Russell has discussed intrinsic and extrinsic causation at some length in his later works as well.[1] According to him, events change in two different ways. One kind of change happens according to the laws of perspective. Any two appearances of the same thing, although they are very similar and may be at two neighbouring places, are different to some extent. No two views of the world are exactly the same. The other kind of change is what he calls 'extrinsic modifications'. When a particular belonging to a group of events making one thing meets ___ i.e. comes to the immediate neighbourhood of ___ particulars of another group making another thing, there is this sort of change or modification because of mutual influence. This is the kind of change that Russell is speaking about in the concluding part of the passage quoted above.

Now, applying this to the case of sensation, for example seeing the sun, we would get a situation like this: A chain of events, that is a causal line, passing outward from a centre where we suppose the sun to be and traversing the intermediate space for about eight minutes, meets (or reaches the immediate neighbourhood of) some particulars or events of another group which we would call the eye; here the former and the latter interact, and as a result of this the appearance of the sun changes its character. Similar changes occur as the process or chain reaches successively the neighbourhood of particulars of the groups forming respectively the nerves and the brain. Thus the final appearance or event is what we call 'seeing the sun'.

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1. The Analysis of Matter, pp.313ff.;324ff.; Human Knowledge, pp.494f.

When this is said, the objector may still insist that such extrinsic modifications are not possible. He may point out that the suggested modifications, to be possible, must occur at some places, namely the places of the eyes, nerves and brain, that according to Russell there is nothing at the places of these things, that these places are empty centres around which events or appearances scattered all over space are arranged to form the constructions which are these objects, and that therefore the suggested contact is impossible.

The concept of a 'hollow centre' defined as the place of a thing offers a real difficulty. We can, however, indicate generally how the supposed contact may be possible. Taking the eye for example, we can say that, although the place of the eye is said to be an empty centre, the centre as the limit of analysis may be taken as very small, and that it has all around it in its immediate neighbourhood some particulars of the group forming the eye. These particulars may be treated as a causal unit.[1] Now, the chain of events forming the light-wave as it reaches the place of the eye will come into the immediate neighbourhood of these particulars. The influence of one particular of one group upon that of another group does not require anything more than this. But this explanation will not perhaps cover the whole of what Russell says about the 'hollow centre'. We shall come to it later on.[2] We may now only note that he has finally rejected

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1. The Analysis of Mind, p.106.
2. See below, pp.184-5, 193.

the idea of the 'hollow centre' in his later writings, and consequently the difficulties about it have been removed.

6. Location of Percepts in the Brain

One aspect of the relation of sensations or percepts to the organism, as Russell conceives it, is the location of percepts in the brain.[1] According to him, the correct interpretation of what is usually called the observation of physical objects is that what we perceive are really percepts located in our brain. The well-known illustration with which he brings out the idea is that of the physiologist observing another person's brain. He says, "It is natural to suppose that what the physiologist sees is in the brain he is observing. But if we are speaking of physical space, what the physiologist sees is in his own brain."[2]

This appeared as a startling position; and Russell has been vehemently criticised on this account.[3] But within the framework of his theory this is quite an intelligible position.[4]

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1. The Analysis of Matter, p.320; An Outline of Philosophy, pp.140ff; Human Knowledge, p.229; My Philosophical Development, p.25; The Philosophy of Bertrand Russell, pp.705-6.
2. An Outline of Philosophy, p.146.
3. For example: E.P.Edwards, 'Are Percepts in the Brain?',Australian Journal of Philosophy,1942; A.O,Lovejoy, op.cit.,pp.280ff; E.Nagel's article in The Philosophy of Bertrand Russell.
4. C.Fritz, Bertrand Russell's Construction of the External World, p.116; D.Cory, 'Are Sense-data in the Brain?',Journal of Philosophy, 1948, pp.533ff.

In this connection Russell's position differs from the positions of other philosophers who gave the same or similar status to percepts. It is a new development and is not found in the theories of the earlier neutral monists. In this, he differs also from other thinkers who, along with him, accepted the causal theory of perception. C. D. Broad, for instance, in his 'Sensum Theory'[1] accepts the causal theory of perception and gives percepts or what he calls 'sensa' a similar status as Russell does. According to Broad, the sensum is the joint effect of external stimulation of the sense-organs, nerves and brain. Sensa are transitory particulars; "they are really extended; they really last for so long".[2] They are particular existents "of a particular kind, being neither mental nor physical".[3] They are 'appearances' of physical objects. In all these, Broad seems to be in complete agreement with Russell as regards the status of sensa. But one fundamental point (among others) in which he differs from Russell is that while Russell places percepts in our brain, Broad thinks that sensa "are not, in any plain straightforward sense, in the one Physical Space in which physical objects are supposed to be."[4]

In order to understand Russell's position, we should keep in mind that he has now accepted the causal theory of perception along with what he calls 'the directed causality',[5] and the

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1. Scientific Thought, ch. VIII; The Mind and its Place in Nature, pp.180ff.
2. Ibid., p.181. 3. Ibid., p.184. 4. Ibid.,p.181.
5. I.e. the irreversibility of causal processes. See above, p.100.

impossibility of 'action at a distance'; that all events including percepts exist as events in causal chains. From all this he draws the conclusion that percepts as physical events must have a place in the physical space and that this place cannot be anywhere else than that of the brain. He says:

> 'Whoever accepts the causal theory of perception is compelled to conclude that percepts are in our head, for they come at the end of a causal chain of physical events leading, spatially, from the object to the brain of the percipient. We cannot suppose that, at the end of this, the last effect suddenly jumps back to the starting point, like a stretched rope when it snaps. And with the theory of space-time as a structure of events, ... there is no sort of reason for not regarding a percept as being in the head of the percipient. I shall therefore assume that this is the case, when we are speaking of physical, not sensible, location.'[1]

As an event in a physical causal chain, a percept must have a place in the physical space. Where could it possibly be ? Certainly it cannot be outside the percipient's body. It has to be, then, somewhere within the body. But it cannot be in the sense-organ or the sensory nerves, for we do not have the sensation or percept until the sensory stimulation reaches some sensory centre in the brain. It follows that the percept must be in the brain, while the events that occur in the sense-organ and sensory nerves form part of its causal ancestry.

Russell maintains that every event occupies a finite amount of space-time and that 'points' or what he calls 'minimum volumes' are only collections of events. "Causal laws enable us to arrange points (or minimum volumes) in a four-dimentional order.

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1. The Analysis of Matter, p.320.

Therefore when the causal relations of an event are known, its position in space-time follows tautologically."[1] Now, what happens, when for example I see a friend coming towards me, is that some physical process starts from the body of my friend, meets my eyes, where it produces its effects; these in turn produce their effects on the optic nerves, which again produce an effect at the visual centre of the brain, which I call 'seeing my friend'. Again, seeing my friend leads to my movements towards my friend and embracing him. This means that the event I call 'my seeing the friend' produces its effects on the efferent nerves leading finally to the movement of the external limbs. Thus the percept, causally considered, is an event between events in the efferent and the afferent nerves. So Russell concludes that "the causal and temporal connections of percepts with events in afferent and efferent nerves give percepts a position in the brain of the perceiver."[2]

When Russell says that percepts are in our brain, he does not mean that a percept is a 'portion' of the brain. 'Portion', he says, is a material concept; "..... a 'portion' of a brain is a set of points (or minimum volumes); an event may be a member of certain points (or minimum volumes) that are members of the brain, and is then said to be 'in' the brain, but it is not 'part' of the brain. It is a member of a member of the brain."[3]

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1. The Philosophy of Bertrand Russell, p.705.
2. Ibid., p.705.
3. Ibid., pp.705-6.

So much for the physical location of percepts. But percepts have 'sensible' location also. A percept has spatial and temporal relations with other percepts of the same perceiver, all the percepts of one perceiver making a 'perspective'. The space that is generated by the mutual spatial relations of the events forming a perspective is called the 'private space' of the perspective. In this sense, there is a private space at every place from which there can be a view of the world; thus there is a private space in the perspective that is at the place of the photographic plate as there is one at the place of a percipient's brain. In the private space of an observer, percepts may be outside one another. Thus in my private or perceptual space my percept of a star is outside my percept of my body, just as it is outside my percept of a table.

But this perceptual or private space, -- though it is immense within itself, i.e. has enormous relations obtaining among its member-events, -- is in a "tiny region"[1] that forms part of the one physical space, also called the 'perspective space'. Each private space is only a small region of the physical space. Whatever events are there in this small region, i.e. the private space, are then in a region which is a region of the physical space, and therefore are in the physical space. Thus, "when I see a star, three places are involved; two in the physical space and one in my private space. There is the place where the star is in

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1. My Philosophical Development, p.24.

the physical space, there is the place where I am in the physical space; and there is the place where my percept of the star is among my other percepts."[1] Of these three places, the first and the second are outside each other, but the third is within the second.

It may be noticed that when we use such words as 'in', 'inside' or 'outside', we may mean either of two sorts of relations, namely (a) the relation of one percept to another percept within the same private space, or (b) the relation of one physical event to another in the physical space. Daniel Cory amplifies this point as follows: When the layman says that the table he sees is outside his head,

> '..... he is right in one sense of the word "outside". The content of naive perception can be phenomenally analysed into a given arrangement of coloured patches — what I call the "apparent thing", and the apparent table is certainly outside my head, considered as another apparent thing in perceptual space. ..... But if we are using the word "outside" in Russell's other sense, the layman is neither right nor wrong, because he does not make the necessary distinctions. In the second sense of the word, then, the physical table is outside of my physical head in the inferred space of physics. It does not follow from this, however, that the apparent table (the percept) is outside of my physical head; on the contrary, if Russell is right, it is in it.'[2]

There is a correspondence between physical space and private space. The spatial relations of private space and public or physical space cannot be identical; their correspondence consists in the similarity of structure. The percepts in a private space

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1. My Philosophical Development, p.106.

2. D.Cory, 'Are Sense-data in the Brain?', Journal of Philosophy, 1948,

have similarity of structure with the physical objects in the physical space. The logical properties of the relations in the two spaces are the same.[1] When, for example, a person observes three physical objects a, b and c, they being situated in the physical space such that b is between a and c, the percepts in his private space will have the same relation, namely that the percept of b will be between the percepts of a and c.

A private space may be that of an individual, or of a recording instrument, or may be one at a place where there is no observer or instrument at all. When a photographic plate photographs a number of stars at a time, the photographs of the stars have spatial relations between them, which make the private space of the perspective that is in the photographic plate; and these relations correspond to the spatial relations of the physical stars in the physical space. The photograph of any of the stars is in the photographic plate. It is an appearance of the star as much as my percept of the star, which is in my private space, is an appearance of the star.

That the photograph of any object is a physical event which is in the plate will not perhaps be seriously doubted even by Lovejoy. Perhaps it will not also be required of a photograph of a five-mile-high mountain-peak to be itself five miles in height, and consequently of the plate to be even bigger than that. But

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1. The Analysis of Matter, p.252.

when we come to the question of the nature and location of percepts, all these doubts are raised and all these demands are made.[1] But if the doubts and demands are not legitimate in respect of the photograph, it is difficult to see how they are so in respect of percepts. It must be emphasised that the correspondence between things and their percepts is a relation of 'structural' resemblance and not of actual physical extension.

The view that our percepts (and even all our experiences) are in our brain is no more a shocking idea now-a-days. Many philosophers admit it; the modern identity-theorists are the most emphatic supporters of it.[2] But Russell seems to be the originator of the idea as also of the identity theory.[3]

7. Subjectivity of Percepts.

Sensations or percepts, according to Russell, are as much dependent on physical conditions as on physiological conditions. In so far as they are conditioned by the physiological factors, they may be said to be subjective in a wider sense.[4] Russell

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1. A.O. Lovejoy, op. cit., pp.301ff.
2. See for example, A.Quinton, op. cit., p.214.
3. See below, pp.296ff.
4. J.Passmore, op. cit., p.238.

admits it and extends the concept of subjectivity to relate it even to physical conditions. He says that subjectivity is not a peculiar characteristic of percepts alone; it is present in all perspectives. "What may be called subjectivity in the point of view is not a distinctive peculiarity of mind: it is present just as much in the photographic plate."[1] As every event occurs in the private space of the perspective of which it is a member, it is in this sense subjective and private.

We have seen how Russell considered the subjectivity of sense-data. The subjectivity of sense-data on grounds of their dependence on physiological factors was then called 'physiological subjectivity'. While he retains this opinion in his later writings, he therein develops a distinct theory of subjectivity.[2] He discusses side by side the notions of subjectivity and objectivity as connected with perception. We may put it briefly as follows.

When, for example, a number of people see a particular thing and a number of cameras photograph it simultaneously, the impressions upon different persons and cameras will be alike in some respects and different in others. The elements which are alike are 'objective', and the elements which are peculiar are 'subjective'.[3] Now, impressions differ in two ways: "Their first-order differences are in accordance with the laws of perspective, while their second-order differences are functions of

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1. The Analysis of Mind, pp.130-1.
2. Ibid., pp.118-9; The Analysis of Matter, pp.222 ff; An Outline of Philosophy, pp.160 ff.
3. An Outline of Philosophy, p.160.

groups with other centres",[1] that is, are due to distortions caused by the objects of intervening medium. It is because of their similarity that we can group them together as forming one physical object; and the more the distortion of an impression, the less the possibility of our connecting it with, or inferring from it, other impressions or events of the group to which it should belong. "The more correct are the inferences we can draw from a percept as to other events (whether percepts or not) belonging to the same group, the more objective is the perception."[2] This Russell offers as a definition of objectivity (also publicity) in perception, which is a matter of degree.

In a wider sense, subjectivity consists in either or both of first-order and second-order differences; in this sense all events are subjective. The subjectivity of percepts generally consists of both types of differences. But in a special sense the subjectivity of percepts and other events consists in a marked degree of the second-order difference. In this sense, subjectivity is defined by the element of distortion due to the function of the intervening objects.[3] Russell distinguishes three kinds of subjectivity according as the distorting objects are (a) outside the body of the percipient, or (b) inside his body but not in his brain, or (c) in his brain. They are called respectively (a) physical subjectivity, (b) sensory or physiological subjectivity, and (c) cerebral or psychological subjectivity. Physical subjectivity

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1. The Analysis of Matter, p.221.
2. Ibid., p.222.
3. Ibid., p.222.

exists in photographs, gramophone records, in the appearance (or percept) of a stick as it looks bent when it is half in water, and in similar other events. Sensory subjectivity arises in cases of defects of sense-organs or afferent nerves as is exemplified in the case "where one person sees two colours, red and green, another only sees one".[1] Cerebral or psychological subjectivity is a result of past experience. "An obvious example is a sensation which appears to be in a leg which has been amputated."[2]

The three types of subjectivity are connected with perception where "subjectivity enters in when we are led to make 'false inferences'."[3] Russell is using here 'subjectivity' in a special sense in which it includes those cases only which he calls "the sources of error".[4] But though there is a difference of meaning of subjectivity in Russell's usages, they have one very important feature in common which we should specially notice here. His use of 'subjectivity' has very little to do with the traditional use of the word, in which when something is said to be subjective it is understood to be in some sense 'mental'. Russell's subjectivity has no such exclusive implication.

Russell's two meanings of subjectivity, though distinct, are not however incompatible. In fact, they may be regarded as a wide and a narrow sense of the word, the narrow sense being implied by the wide sense. In the wide sense subjectivity stands for any

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1. The Analysis of Matter, p.224.
2. Ibid.,p.225. 3. Ibid., p.225. 4. Ibid., p.225.

difference of percepts or events, irrespective of the degree of their distortion or modification; while in the narrow sense it stands only for those cases of unusual degree or kind of distortion which makes inferences difficult or even leads to wrong inferences.

There is an important question about the special sense of subjectivity. It is as to how we know that in a particular perception there has been distortion at all. When, for example, a stick half in water looks bent, how do we know that it is not, in fact, bent ? The question is about the criterion of determining cases of distortion in perception. Russell does not seem to directly ask the question himself, and hence no direct answer from him. But from his discussions of related points, it is possible to suggest what his answer would be. Now, it is obvious that a single percept, however much distorted it may be, does not contain in itself anything that would enable us to know that it is a distorted appearance of the object. We can only know about the distortion from a comparison of the percept concerned with other percepts related to the object. While looking at the stick we may also touch it moving our hand from one end of it to the other. There will then be a discrepancy between the two percepts. We cannot yet tell which is the distorted percept. But normally we have other experiences also in connection with the object both at the same time and at successive moments under different conditions. We then find that all the percepts agree with one another in a certain respect except one, namely the percept of the bent look. It is this lack

of correlation with other relevant percepts that is the criterion of determining the fact of distortion of any percept. This is an empirical criterion and becomes increasingly perfected as our experience grows more and more numerous.

This accords with what Russell says about the inferability of correlated events from our perceptions. He says that very little can be inferred from a single percept, that a single percept may be deceptive, and that we need for the purpose of inference observation from different points of view and through a certain period of time.[1] This may be taken as a clue to what Russell's answer would be to the question we have raised. And accordingly the answer we have suggested above seems to be the only possible answer from the Russellian point of view; and this is perhaps the only possible criterion from any point of view.

8. Images as Particulars

From the beginning of his neutralism Russell accepts images as part of the ultimate stuff of the world. He explains images by comparing them with sensations. Images do not differ from sensations intrinsically; they are 'copies' of sensations,[2] which are

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1. The Analysis of Matter, pp.225-6.

2. It hardly needs emphasising that Russell's theory of images is in the main Humeian.

their prototypes. He says:

> 'It is this fact, that images resemble antecedent sensations, which enables us to call them images of this or that. For the understanding of memory, and of knowledge generally, the recognizable resemblance of images and sensations is of fundamental importance.'[1]

The difference between images and sensations, according to Russell, is that of causal nature.[2] Images are causally connected with past experiences. An image is caused, through association, by a sensation or another image. He says that "the causation of an image always proceeds according to mnemic laws, i.e. that it is governed by habit and past experience."[3] But in the causation of sensation, past experience and mnemic laws do not play any part. The stimulation of nerves carrying an effect into the brain has an essential role in the causation of sensations, but not in the causation of images.[4]

Sensations and images also differ in respect of their effects. Sensations have both mental and physical effects, but images have only mental effects, or at any rate effects that follow according to mnemic laws.[5]

On the basis of the similarities and causal differences between images and sensations, Russell develops his definition of 'image'. He says, "We might have called an event an 'image' when it is recognisably of the same kind as a'percept', but does not

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1. The Analysis of Mind, p.155.
2. Ibid., pp.149ff; An Outline of Philosophy, pp.187ff.
3. The Analysis of Mind, p.150.
4. Ibid., p.151.
5. Ibid., p.151.

have the stimulus which it would have if it were a percept."[1] He makes a further refinement of the definition and says that "an 'image' is an occurrence recognisably visual (or auditory or etc., as the case may be), but not caused by a stimulus which is of the nature of light (or sound or etc., as the case may be), or at any rate only indirectly so caused as a result of association."[2]

We already know that Russell, in his partial neutralism, regards images as purely mental; but in his complete neutral monism he regards them as neutral. In the earlier theory, he takes images to be subject to only psychological laws, — mnemic laws being part of psychological laws. He then wishes that, if mnemic causation of images could be explained in terms of modifications of brain states, it would have been possible to bring images under physical causation and to treat them as neutral. In the later theory, he effects what he wished before, and thus tries to bring images under physical causation. He now declares images to be neutral. But we have seen that neutrality, in his later theory, does not depend on causal relations; and therefore bringing images under physical causation, or in other words explaining mnemic causation in terms of modifications of brain states, has little to do with the neutrality of images. Anyhow, the neutrality of images is a new development in his later theory.

Another development from his earlier position is that, whereas images were previously regarded as constituents of mind or

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1. An Outline of Philosophy, p.193.
2. Ibid., p.193.

mental phenomena only, they are now constituents of matter as well, namely the matter of our brain.[1]

Russell takes images as among mnemic phenomena, that is as being subject to mnemic causation. But his conception of mnemic phenomena and mnemic causation has undergone changes at different stages. In 'The Analysis of Mind', he gives the following explanation:

> 'We will give the name of "mnemic phenomena" to those responses of an organism which, so far as hitherto observed facts are concerned, can only be brought under causal laws by including past occurrences in the history of the organism as part of the causes of the present response. ..... I mean that, in attempting to state the proximate cause of the present event, some past event or events must be included.'[2]

According to this view, mnemic causation involves an interval of time between the cause and the effect without any intervening chain of causes. This is action at a distance in time.

In his later works Russell rejects 'action at a distance' and accordingly modifies his conception of mnemic causation. He says that "if we are to avoid 'mnemic' causation, which involves action at a distance in time, we must say that mnemic phenomena in mental events are due to the modification of the body by past events."[3] He makes this position more specific and explains mnemic causation in terms of modification of brain states. He says that the connection of images with past experience is clearly known and that "this connection works through an effect of the past experience

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1. See below, pp.193-4.
2. The Analysis of Mind, p.78.
3. An Outline of Philosophy, p.306.

on the brain".[1] Thus it is possible to talk of association in regions of the brain. "The state of the brain which causes us to hear the word 'Napoleon' may become associated with the state of the brain which causes us to see a picture of Napoleon and thus the word and the picture will call each other up."[2]

Russell accepts this brain-state theory of image and association first tentatively in 'An Outline of Philosophy' and then categorically in his reply to criticism in which he uses the term 'modifications of brain structure'[3] to convey the idea.

Now, the term 'modification of the body' or 'modifications of brain structure' needs a little clarification. For, according to Russell, there is no permanent body or brain, but only a series of groups of events. What he seems to mean by these terms is this: A percept or sensation is an event in the brain; it is succeeded by an event which is its copy or image; this is succeeded by another event, and so on. Thus there persists a chain of events as a part of the series of groups of events that is the brain.

Thus, Russell offers what he calls a "physical basis"[4] of the mental mnemic phenomena. But we need not suppose that this necessarily means a reduction of the mental causal laws of images to a physical law of brain events. It is of course true that according to Russell the events of this

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1. An Outline of Philosophy, p. 189
2. Ibid., p. 187.
3. The Philosophy of Bertrand Russell, p. 700.
4. An Outline of Philosophy, p. 187.

particular chain are constituents of the brain and as such are subject to physical causation. But so also are our percepts and conscious experiences. It is possible that the events of this chain remain all the time members of the other arrangement which is the mind. It is not necessary to suppose that one member of the chain becomes mental at the time when there is a memory or thought, and that its antecedent and consequent members of the chain should remain purely physical. In so far as Russell maintains at this later stage that there can be unconscious images and percepts and that the brain has for its constituents all mental events, conscious or unconscious, it seems only natural to suppose that the events of this particular chain remain all the time members of both the groups or arrangements, namely mind and brain. At times members of the chain are conscious, as in cases of memory and thought, and at other times, the members are unconscious, — we may say unconscious images. This does not contradict any of Russell's fundamental principles, and accords well with the causal dualism[1] which he in fact retains throughout his neutral monism.

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1. See below, pp.270ff.

9. Unperceived Particulars

Besides sensations and images, Russell accepts 'unperceived particulars' as part of the stuff of the world. He recognised them prior to his acceptance of neutralism. He then called them 'sensibilia'. In his neutralism, he retains them, but no more calls them sensibilia; he now names them variously as unperceived appearances, particulars, aspects or events. The name 'unperceived events' is used in his complete neutral monism with a wider denotation, and includes not only the unperceived particulars which were called sensibilia, but also 'unperceivable' events.

Russell defined sensibilia as "those objects which have the same metaphysical and physical status as sense-data without necessarily being data to any mind".[1] He conceived the relation of a sensibile to a sense-datum as "like that of a man to a husband: a man becomes a husband by entering into the relation of marriage; and similarly a sensibile becomes a sense-datum by entering into the relation of acquaintance".[2]

Russell gave this definition in 1914 when he believed in the psycho-physical dualism of sensation and sense-datum. He then took sense-data as appearances of objects to a perceiving mind, and sensibilia as appearances of objects from places where there were no perceiving minds. Now, as in his neutral monism sensation and sense-datum are identified, the above definition

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1. Mysticism and logic, p.148.
2. Ibid., pp.148-9.

needs modification which may be effected by taking sensation in place of sense-datum. While sensations are now appearances where there are percipient organisms, sensibilia are appearances where there are no percipients. The relation of sensation and sensibile is still like that of husband and man, in the sense that a sensibile is an aspect which can become a sensation by coming "into contact with a living body".[1]

Russell feels the necessity of asserting the existence of unperceived aspects because without them our construction of the world would be fragmentary and discontinuous. Physical objects are groups of aspects or appearances. If an object be only the group of perceived aspects, it would then exist only where and when there were observers. But this is not the usual conception of material objects; and according to this conception it would be impossible for us to make statements about things when no observers were perceiving them, and verifiability of physical laws would become impossible. To avoid these difficulties, Russell accepts unperceived aspects or events correlated to one another and to the perceived aspects according to the laws of physics.

At the early stage of his neutralism Russell asserts the existence of unperceived aspects on grounds of continuity and resemblance.[2] As we move around an object, we get similar sensations from different positions, and we believe that if the object

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1. The Analysis of Mind, pp.143-4.

2 Ibid., p.99; Mysticism and Logic, p.154.

is a physical thing we should be able to get a continuous series of sensations. Again, if a number of people observe the same thing, they get more or less similar sensations, and it is believed that if there were other observers, they also would have similar sensations. The existence of aspects of objects at places where there are no observers can be verified to some extent by placing recording instruments, such as cameras, dictaphones, etc., between observers and then comparing the records with the sensations of observers as they would recollect them. This argument is developed in some detail in 'The Analysis of Matter'.[1]

In his complete neutral monism, the acceptance of the causal theory of perception offers further justification for our inference from perceived events to unperceived events. Russell now feels that continuity alone is not enough for establishing the "reality" of unperceived events; 'ideal' or imaginary aspects would be sufficient to give continuity and fullness to a set of aspects. But "it is hard to see how anything merely imaginary can be essential to the statement of causal laws".[2] It is therefore necessary to establish the existence of unperceived events on some surer ground than mere continuity; and the causal theory of perception, Russell thinks, affords the desired ground. On the basis of this theory, we can infer from our percepts the existence of unperceived events causally correlated and continuous with them. We cannot, however, infer anything as to the intrinsic nature of these events

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1. Op. cit., pp.256ff.
2. The Analysis of Matter, p.197.

but only that they are similar in structure to our percepts; and beyond this we cannot go.[1]

From the percept we can infer something about the stimulus which is an event that causes the percept. Differences between percepts enable us to infer the differences between their stimuli. Russell says that by inverting the maxim 'same cause, same effect' we may argue 'different effects, different causes'. He says:

> ' ..... if a person hears two sounds at once or sees two colours at once, two physically different stimuli have reached his ear or his eye. This principle, together with spatio-temporal continuity, suffices to give a great deal of knowledge as to the structure of stimuli. Their intrinsic character, it is true, must remain unknown; ..... there is a roughly one-one relation between stimulus and percepts ..... This enables us to infer certain mathematical properties of the stimulus when we know the percept, and conversely enables us to infer the percept when we know these mathematical properties of the stimulus.'[2]

The acceptance of the causal theory of perception leads Russell to assert, not only unperceived events which were called sensibilia, but also 'unperceivable' events. The unperceived appearances of his partial neutralism are all perceivable in so far as they can be transformed into sensations by their coming into contact with appropriate organisms.[3] But his later theory includes further unperceived events which are unperceivable as well. This follows from the causal theory. If perceptions are caused by events outside our body, there must always remain some events which are only causes of perceptions and are not themselves percepts. In a causal chain of events of which the end-product is a percept, any

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1. The Analysis of Matter, pp.226-7, 254; An Outline of Philosophy, pp.163-4.
2. The Analysis of Matter, pp.226-7.
3. The Analysis of Mind, p.144.

two neighbouring events would be such that the prior one is the cause of the other which is later. Now, if we take various positions along this chain, it is possible that most of the events of the chain would be transformed by our organism into percepts; but there will have to be some event, at least the one at the beginning of the series, which cannot become a percept. For, if it does, this perception will have no cause, and this will contradict the causal theory of perception.

Thus our inferences from percepts to unperceived events are made possible; and what we know about them is their structural similarity with percepts. Russell does not, however, think that the arguments for unperceived events are as strong as those for the percepts of other people; but these arguments, especially the one from the causal theory of perception, are as good as any of the fundamental inductions of science.[1] Accordingly, there are three grades of certainty or probability that attach to our knowledge of the events which form the stuff of the world. While our own percepts and images are most certain, those of other people are less certain than ours, and the unperceived events are even less certain than the percepts of other people.

Russell calls all particulars 'verifiables'. He uses the term 'verifiable' in a wide sense to include not only what we ourselves or human beings generally experience, but also unperceived particulars which can be inferred from what we experience. Two

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1. The Analysis of Matter, pp.206-7.

principles must be followed in inferring unperceived events: (1) the inference must be made explicit and must be in accordance with recognised canons of scientific method; and (2) the entities inferred should be similar to and continuous with the observed entities and must not be like the Kantian 'Ding an sich' which is wholly unlike and removed from the observed data.[1] An unverifiable entity is in this sense any supposed object the like of which we can never experience; it is something which involves an inference the ground for which cannot be discovered. "In this sense", says Russell, "I do wish to dispense with 'unverifiable' entities. This is my reason for doing without matter, points, instants, etc. It is my reason for the use of Occam's razor ..... if entities are validly inferred, I do not think they can be rightly called 'unverifiables', in the sense in which this word is commonly used in science."[2]

Now, unperceived particulars are constituents of physical objects just as perceived particulars are. So the question naturally arises as to whether unperceived particulars possess the same qualities as the percepts do. There seems to be no difference of opinions as to Russell's later views on the subject according to which we can only know the abstract logical and mathematical properties of structural similarity of unperceived events with percepts. But as regards his earlier views there is much confusion among commentators. Fritz and Lovejoy[3] represent him as maintaining

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1. Mysticism and Logic, p.157; The Philosophy of Bertrand Russell, pp.707-8.
2. Ibid., p.708.
3. C.Fritz, op.cit., ch. IV, part I; A.O. Lovejoy, op. cit., pp.150, 152 f., 277.

at the early stage that unperceived aspects are in all ways exactly "like sense-data (or sensations), except that they do not happen to be perceived".[1] According to their interpretation, the unperceived aspects have all the sensible qualities of sensations. Thus the unperceived appearance corresponding to a perceived red patch is red in the same sense as the perceived patch. Lovejoy represents Russell's views as follows:

> 'An "appearance" is just the sort of thing you actually see, even though it may be in fact unseen; it is primarily a colored shape, or rather a group of colored shapes ..... It is only by thus imputing to the "outside particulars" ... ... all the sort of properties empirically found in sense-data, that he is enabled to maintain that sense-data are matter.'[2]

But this seems to be a complete misrepresentation of Russell's position. This seems to be based on a failure to take notice of his clear positive statements which are sufficient to establish his position which in fact is contrary to the one imputed to him in the above interpretation. This interpretation seems to have been derived from a misunderstanding of some such statements as (a) that sense-data (or sensations) are perceived sensibilia; (b) that sensibilia are similar to, and have the same metaphysical and physical status as, sensations or sense-data; (c) that colour, sound, etc., are actual constituents of the physical world. What Russell says later[3] about 'ideal elements' by way of constructing the phenomenalistic picture of the world only to reject it, seems to have been taken by these commentators as his own views on the

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1. C. Fritz, op. cit., p.165.
2. A.O. Lovejoy, op.cit., pp.253-4.
3. The Analysis of Matter, pp.210 ff.

subject. But if they considered these statements carefully in their proper contexts and compared them with many other statements (some of which we shall present shortly), they would have then seen that their interpretation could not be thrust upon Russell.

The statements (a) and (b) above do not by themselves prove that sensibilia as unperceived have the same qualities as when they are perceived. For when they are perceived, they are sensations (sensibilia transformed) and not sensibilia as such. The similarity of unperceived particulars and sensations may not be, and according to Russell is not, a complete similarity; and their partial similarity may be enough for treating them as having the same metaphysical and physical status. About the statement (c) above there is a clear misunderstanding of Russell's position. Lovejoy says, "It is, of course, an essential of Mr. Russell's theory now under consideration that colours and sounds and secondary qualities generally should not be excluded from the physical world."[1] He then quotes from 'The Analysis of Mind' (p. 142) the following:

> 'The sensation that we have when we see a patch of colour simply is that patch of colour, an actual constituent of the physical world, and part of what physics is concerned with.'

Lovejoy finds in this sentence justification for regarding unperceived aspects as having colour, sound and all other secondary qualities. But I fail completely to see how it can offer the justification sought for. We have already seen that this sentence forms part of Russell's arguments for abolishing the dualism of sensation and sense-datum.[2] In this sentence, it is the sensation,

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1. A.O. Lovejoy, op. cit., p. 253 footnote.
2. See above, p. 86.

and not *sensibile* or unperceived aspect, that is the patch of colour; and even without going into the context it is easy to see that in it there is absolutely no reference to any unperceived aspect. Sensations are constituents of physical objects, and the possession of secondary qualities by them would preserve their inclusion in the physical world. But from this it does not follow that other particulars, namely the unperceived aspects, should necessarily possess them; and Russell's sentence quoted above does not have any such implications.

As to the 'ideal elements' which Russell speaks of in his formulation of phenomenalism, we need only to point out that he does not assert anything there as his own views. He develops that position only to reject it; and the ground for this rejection is mainly his non-acceptance of 'ideal elements'.[1]

Now, let us consider some positive statements that show that unperceived aspects, according to Russell, cannot have the same qualities as sensations. In 'Our Knowledge of the External World' he says that "immediate objects of sense depend for their existence upon physiological conditions in ourselves, and that, for example, the coloured surfaces which we see cease to exist when we shut our eyes".[2] When two people see the world from neighbouring

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1. See above, p. 134; The Analysis of Matter, p. 197. Phenomenalism has been variously defended and criticised in recent philosophy. Compare, e.g., its defence by A.J. Ayer in Philosophical Essays, pp. 125 ff., and its criticism by R.J. Hirst in The Problems of Perception, chapter four, and I. Berlin, 'Empirical Propositions and Hypothetical Statements', Mind, 1950. (Ayer has now abandoned phenomenalism).

2. Our Knowledge of the External World, second edition, p. 68.

places, they will see two somewhat similar worlds. If a third man comes and takes a position between them, he will see a third and intermediate world. Now, "we cannot", says Russell, "reasonably suppose just this world to have existed before, because it is conditioned by the sense-organs, nerves, and brain of the newly arrived man; but we can reasonably suppose that some aspect of the universe existed from that point of view, though no one was perceiving it."[1]

The same view is expressed in 'The Analysis of Mind'. Speaking about particulars other than those we experience, he says that they are what "make up that part of the material world that does not come into the sort of contact with a living body that is required to turn it into a sensation".[2]

These statements clearly show that unperceived events cannot become sensations without contact with percipient organisms, and cannot have the qualities possessed by sensations because these qualities are dependent upon physiological conditions. It follows that it is very wrong to suggest that according to Russell unperceived aspects have the same qualities as sensations or percepts.

As to what we can know about the qualities of unperceived aspects, Russell's views are clearly stated in the following passages:

> 'What it is that happens when a wave of light reaches a given place we cannot tell, except in the sole case when the place

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1. Our Knowledge of the External World, second edition, p.95.
2. The Analysis of Mind, p.144.

> in question is a brain connected with an eye which is turned in the right direction. In this one very special case we know what happens: we have the sensation called "seeing the star". In all other cases, though we know (more or less hypothetically) some of the correlations and abstract properties of the appearance of the star, we do not know the appearance itself.'[1]

> 'I contend that the ultimate constituents of matter are not atoms or electrons, but sensations and other things similar to sensations as regards extent and duration.'[2]

Thus, according to Russell, we can only know some correlations and abstract properties of unperceived aspects. This is virtually the same theory as that of the later stage according to which we can only know abstract logical and mathematical properties of unperceived events. While in the earlier theory the similarity of unperceived aspects with sensations is said to be as regards 'extent and duration',in the later theory it is said to be a structural similarity. But extent and duration are structural properties; so, the earlier and later views are in effect the same.

Now, the contention that unperceived aspects are similar to sensations 'as regards extent and duration' gives Stace a clue for saying that Russell in the earlier theory revives Locke's distinction of primary and secondary qualities, that he holds the selective type realism in respect of the primary qualities and the generative type in respect of the secondary qualities, and that he holds primary qualities to be objective and secondary qualities subjective.[3] But Russell has rejected this interpretation[4]: he holds

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1. The Analysis of Mind, p.134.
2. Ibid., p.121.
3. W.T.Stace, op. cit.,pp.368ff; For a discussion of selectivism and generativism, cf. H.H.Price, Perception, pp.40ff.
4. The Philosophy of Bertrand Russell, p.709.

the generative theory about both primary and secondary qualities, and he regards "both as subjective in the sense that neither can exist except in a region where there is an organism with sense-organs and a brain".[1] This last statement is apparently misleading in so far as it seems to suggest that there are no qualities at places where there are no percipient organisms. Taken in this sense, this would contradict his other statements to the effect that every event, perceived or unperceived, occupies a little space and has a short duration and that there are differences between events which are causes of different percepts such as those of red and green, and so on. It would appear from this that he is simultaneously affirming and denying qualities of unperceived events.

But the inconsistency is more apparent than real. Of course, the statement quoted above is an example of the sort of ambiguity one often finds in Russell's writings. The ambiguity here arises from the fact that he does not specify whether he is speaking here of qualities of events in general or of the qualities of percepts alone. But if we are to avoid the inconsistency mentioned above, we have to take the statement to be about the qualities of percepts, qualities that we know directly in our experiences. We have also to remember Russell's special sense of 'subjective' according to which every event is subjective in so far as it occurs in the private space of a perspective having its own local time, and is somewhat different from every other event correlated with it. Thus the qualities (primary and secondary) of

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1. The Philosophy of Bertrand Russell, p.709.

percepts are known to us directly in our experience; they do not exist anywhere else than in us, and do not qualify anything outside us. The above statement means only this. But the extent and duration of any unperceived event are a matter of inference from our percepts, and are peculiar to the event itself and are not just the same as those of our percepts. Accordingly, the extent and duration of an unperceived event, which more or less correspond structurally to the primary qualities of a percept, are as much subjective as the latter are. As regards secondary qualities, what we can at best infer about unperceived events is that there are differences between them corresponding to the differences between the percepts they cause; but we cannot know what these differences are. We cannot therefore know the intrinsic characteristics of unperceived events; and whatever these characteristics (if any) may be, they would be entirely subjective depending on the perspectives to which the events belong, and on the conditions connected with these perspectives. Thus all qualities are found to be subjective in this sense.

Now, coming to the question of the neutrality of unperceived events, we have only to repeat that in Russell's partial neutralism they are purely physical and that in his later theory they are neutral. In the early theory, a particular is neutral if it is subject to both psychological and physical laws; but unperceived particulars are subject only to physical laws and are therefore purely physical. But Russell could perhaps avoid this and take unperceived particulars as neutral even on the basis of

that early criterion. For the unperceived aspects or sensibilia, besides being of the same status as sensations, are all perceivable; each sensibile can become a sensation by coming into contact with a living body. Thus, although unperceived appearances are in fact subject to physical laws only, they have a potentiality of being subject to psychological laws. On the basis of their potential nature they might be regarded as neutral particulars. But Russell does not so regard them at that stage. So long as they are unperceived, they are not part of any experience and are therefore outside the scope of psychology and are purely physical. We have seen that Russell was then quite emphatic in denying their neutrality. It is only in his complete neutral monism that he regards them as neutral entities.

10. Monads and Neutral Particulars

So, according to Russell, sensations (or percepts), images and unperceived particulars form the primary stuff of the world, and mind and matter are complex constructions out of them. In his partial neutralism only sensations are neutral, but in his complete neutral monism all particulars are neutral. Now, the influence of Hume on Russell's conception of the constituents of the world is obvious and can hardly be exaggerated. There is

complete agreement between them as regards the rejection of substance generally and the self or ego as an entity in particular. Russell conceives the nature of sensations and images more or less in the fashion of Hume's impressions and ideas. His concept of 'sensibilia' is also derived from Hume with the difference that for Hume they are imaginary or hypothetical elements[1] while for Russell they are self-subsistent real entities. Russell, however, goes beyond Hume in accepting unperceived events other than sensibilia, namely the unperceivable events. There is also a difference of standpoint. Hume's approach is psychological, and his philosophy is called psychological atomism. Russell's analysis is logical, and his philosophy is logical atomism. His atoms are finally declared to be neutral, while Hume's atoms are psychological.

Another philosopher who was not a neutral monist but with whose philosophy Russell's neutral monism has similarities in some important respects, is Leibniz. Russell himself acknowledges that his neutral monism can be understood "as a modification of Leibniz, dropping the dogma that monads are 'windowless' and the belief that all of them are in some sense 'souls'."[2] The general structure of Russell's world can, according to him, be derived by emending that of Leibniz's world. In view of this, a comparative study of Leibniz's monadology and Russell's neutral monism must be instructive. This should therefore form the subject-matter of an independent research project. We cannot go into it here and will

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1. D. Hume, A Treatise of Human Nature, Book I, Part IV, Section II; H.H. Price, Hume's Theory of the External World, pp.178-9.

2. The Philosophy of Bertrand Russell, p.708; My Philosophical Development, pp.24 f.

therefore make only a very brief statement about how we could understand Russell's neutral particulars with reference to the monads of Leibniz.

The world, according to Leibniz, consists of an infinite number of unextended simple substances which are called 'monads'. Each monad is a soul or spiritual atom. There is no interaction between monads; each monad is shut up within itself, it is 'windowless'. It mirrors the universe as a whole from a certain 'point of view'; it is a universe in miniature. In the world consisting of monads there are two kinds of space: (a) the subjective or private space in a monad's picture of the world, which orders a manifold that is within the monad; and (b) the objective space which is the assemblage of 'points of view' (i.e. monads) ordered according to differences of perspective; this is the space of physics.[1]

We have already seen how Russell accepts the Leibnizian distinction of private and public space.[2] But as he explains,[3] various modifications of the Leibnizian 'schema' are necessary in order to obtain from it his neutral monistic world. In the first place, there is no reason why a monad should be a 'soul'; it consists, according to Russell, merely "of all the occurrences exhibiting a certain perspective point of view";[4] even a photograph satisfies this condition. Secondly, a monad, for Russell, is not windowless and does not mirror the whole universe but only a part

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1. G.W.Leibniz, Monadology, in Basic Writings(Open Court Ed.),pp.251ff.
2. See above, pp.118ff.
3. The Philosophy of Bertrand Russell, pp.708-9.
4. Ibid., p.708.

of it, namely that part with which it is causally connected. Thirdly, the image (or effect) of one monad at another depends not only on the former and its distance from the latter, but also on the intervening medium. Fourthly, a monad does not mirror the present state of another monad but only a somewhat earlier state of it, depending on the velocity of light, sound, etc. Fifthly, the images of two monads may so inferfere with one another that the resultant event at a third monad cannot be regarded as representing either or both. Russell thinks that further modifications may be necessary, but he accepts the Leibnizian 'schema' as emended in the above manner as a "ground plan".[1]

But we have not yet got Russell's neutral particulars. What has so far been done by making the above emendments is that the monad has been made neutral and also a causal unit. It was originally a 'soul' or spiritual atom; but it is no more so, and it is not matter either even for Leibniz. But to arrive at Russell's neutral particulars one further step is necessary. For a monad mirrors a part of the world; it is a point of view or what is called a perspective. But we know that for Russell a perspective is not atomic or simple, it is the group of all the particulars that exist at a place at a given moment.

Thus in Russell's neutral monism, the monad is analysed into its constituent elements which are the neutral particulars.

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1. The Philosophy of Bertrand Russell, p.709.

The position is analogous to the one that we find in physics. In 'atomic' physics, the atoms are the ultimate units, while 'sub-atomic' physics analyses the atom into electrons and protons. If monadology is taken as 'atomic', Russell's theory is 'sub-atomic'; Russell analyses the monads into neutral particulars.

Russell's neutral particulars are sensations (or percepts), images, sensibilia and unperceivable events. All these except the last are found in Hume's psychological atomism. Thus we may conclude that there is in Russell's theory of neutral particulars a peculiar fusion of the atomistic ideas of Hume and Leibniz. Russell, in fact, makes the monads neutral and analyses them in terms of Hume's atoms (with additions) which also are made neutral. He takes the Leibnizian 'schema' or structural plan of the world, fills it up with Humeian elements adding to them unperceivable events, and applies to all the elements the category of 'neutrality' as conceived by Mach, James and the new realists.

CHAPTER IV

THE THEORY OF MATTER

1. Simples versus Constructs

In the preceding chapter we considered the nature of neutral particulars and some problems connected with them. We should now consider how Russell constructs matter and mind out of them. But before that, something should be said about what distinguishes a construct from what is not a construct. From our earlier discussions it is perhaps clear that the particulars obtained as the limit of analysis are not constructs; they are the units which are the ultimate entities in the relative sense as explained above. But what is a construct ?

There is some confusion as to what Russell takes to be a construct. He makes at least two suggestions. He puts it as a maxim: "Wherever possible, substitute constructions out of known entities for inferences to unknown entities."[1] He calls it the principle of "constructions versus inferences".[2] The unknown inferred entities with neat logical properties are the suspects[3] and are to be represented as constructions.

Now, the expression "constructions versus inferences" seems misleading. It may be supposed to mean that all inferred

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1. Logic and Knowledge, p.326; Mysticism and Logic, p.155; See above, p.64.
2. Logic and Knowledge, p.329.
3. Ibid., p.326; My Philosophical Development, p.16.

entities should be regarded as constructs, and that whatever is not inferred is not a construct. It may also be taken to mean that the materials used in a construction must all be non-inferred, that a construction which uses inferred elements fails to perform the function of replacing the unknown inferred object for which it is a construction, because it then involves a "circularity" in the sense that it purports to replace an inferred object by a construction out of inferred elements (with additions). Russell's maxim has sometimes been interpreted in this sense, and his use of unperceived particulars has been accordingly criticised.[1] This interpretation and the criticism based upon it seem relevant with reference to Russell's expression "constructions out of known entities for inferences to unknown entities", if 'known' and 'unknown' here are supposed to mean 'perceived' and 'unperceived' respectively.

But this interpretation as well as the criticism seems unnecessary. Of course, Russell is partly to blame for this unfortunate situation; for he does not initially specify the meaning of the words 'known' and 'unknown' in the above maxim, and thus leaves his position ambiguous. But the ambiguity can be removed by considering his actual practices and later statements.

We should notice that Russell proposes to substitute constructions for inferred objects "wherever possible". This means that we cannot, possibly need not, dispense with

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1. For example, C. Fritz, op. cit., pp.177-8.

inferences altogether. Inferred entities with neat logical properties are the suspects, but all inferred entities may not be taken as constructs. In fact, Russell allows two kinds of inferred entities, namely the percepts of other people and unperceived particulars.

Secondly, we have seen that Russell calls particulars (both perceived and unperceived) 'verifiables'.[1] What is verifiable or rather verified is also 'known' to the extent of its verification. This sense of 'known' is wider than that in which 'known' means 'perceived' or 'experienced'; and Russell's use of 'known' is to be understood in this wider sense in which it means 'verifiable'. Some inferred entities are verifiable because the like of them (with which they are continuous) are directly perceived, and the former are inferred from the latter in accordance with scientific methods. Thus unperceived particulars, though inferred, are verifiable.[2] But some inferred entities are not verifiable, because neither they themselves nor anything like them are ever experienced. Matter and mind, for example, are such inferred non-verifiable entities, and are to be shown as constructs. Russell's maxim would perhaps avoid the above criticism, had he used in it 'verifiable' and 'non-verifiable' in places of 'known' and 'unknown' respectively. It is a fact about Russell that he has never produced constructions of material objects out of

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1. See above, pp.136-7.

2. According to Russell they are of the same kind as the perceived particulars, whereas the non-verifiable inferred objects are of a different kind.

'perceived' elements alone. Even in 'Our Knowledge of the External World' wherein he proposes to construct matter out of 'hard data' (i.e. perceived data) alone, he in fact includes sense-data of other people and unperceived 'sensibilia' which are for us only inferred entities. Indeed, the meaning of Russell's use of the maxim can be given by saying: "Wherever possible, substitute constructions out of verifiable entities for inferences to non-verifiable entities" —— using 'verifiable' and 'non-verifiable' in Russell's sense as explained above.

We should not, however, suppose that the inferred non-verifiable entities are alone constructs, or that the materials for constructions are all non-inferred. Russell obviously does not mean this. He in fact uses constructions for phenomena that are directly known to us. Our actual experiences such as perception, memory, etc., are neither inferred nor non-verifiable, but according to Russell they are constructions. Moreover, the particulars out of which constructions are made are not all non-inferred; unperceived particulars are the obvious examples.

It follows that neither 'inferred-ness' nor 'non-verifiable-ness' is by itself the distinguishing characteristic of the construct. Some constructs, for example perception, memory, etc., are non-inferred and also verifiable; whereas some constructs, for example mind, matter, etc., are inferred and non-verifiable. The 'inferred non-verifiable' entities are constructs; but all constructs are not so. Thus we do not get here the distinguishing mark of the constructs.

We have, therefore, to turn to Russell's second suggestion.[1] According to it, a construct is something which is a complex. Whatever is analysable into elements and their relations is a complex and is therefore a construct; and whatever is not so analysable is a simple and thus is not a construct. Thus the real distinction between the constructs and the non-constructs is that between the simples and the complexes composed of simples. From the standpoint of neutral monism this distinction is important; the neutral particulars are the simples that form the ultimate stuff of the world, and both mind and matter are complexes composed of the simple particulars.

The uses of constructions in Russell's philosophy are various; numbers, points and instants are some of the early examples of them. His construction of matter and mind with which we are mainly concerned may be considered from various epistemological and metaphysical points of view. As we are not primarily concerned with the epistemological uses of his constructions, we shall not dwell on them at length. We shall only give a brief statement of the epistemological problem and then pass on to the metaphysical use of constructions, particularly with reference to neutral monism.

The epistemological problem may be stated as follows. We have beliefs about our immediate experiences and beliefs about what common-sense and science call physical objects, matter and mind. The former beliefs are certain

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1. See above, p.75; c.f. E. Nagel's article in The Philosophy of Bertrand Russell, pp.340 ff.

because they are self-evident. But the latter beliefs are all inferred and are about unverifiable entities. Question arises as to how we are justified in entertaining beliefs about such entities. The evidence necessary for such beliefs cannot, according to Russell's analysis, be provided by our fragmentary experiences. At this point the use of constructions becomes significant, for it makes such evidence unnecessary. The analysis of these entities as constructions out of particulars some of which are actually experienced and the remaining of which are legitimately inferred from them as being similar to and continuous with them, offers an interpretation of the beliefs in question in terms of justifiable beliefs. It shows how we can entertain the beliefs about these entities without assuming non-verifiable substances.

We express our beliefs in statements or propositions. So the epistemological problem may be stated in terms of the statements of our beliefs. The problem is to find an interpretation of the statements of the beliefs about non-verifiable entities like matter and mind in terms of the statements of beliefs about verifiable entities. By showing that non-verifiable inferred entities are constructions out of verifiable entities, Russell offers a method of interpretation of the statements of the beliefs about the former objects. Thus in apparently establishing the truth of the statements about complexes we are in fact establishing the truth of the statements about the classes of particulars that constitute these objects, or about the structures composed of simple particulars.

The extent of the success of Russell's constructions in solving the epistemological problem has sometimes been doubted. For example, his contention that the statements about complexes are equivalent to the statements about their constituents has been questioned. It has been said that the suggested translation or analysis of a statement about a complex into those about the constituents and their relations is not possible, because symbols such as 'table' and 'I' are indispensable,[1] or because the translation would introduce serious complications in the structure of science,[2] or because the collection of simpler statements into which the original complex statement is analysed do not give the whole meaning of the original and therefore are not equivalent to it.[3]

Russell seems to think that the difficulties are of a practical nature due to lack of sufficient knowledge and the lengthy elaborate process of analysis that may be required for translating a given complex proposition. He thinks that, given sufficient time and knowledge, all the facts asserted by the use of complex symbols such as 'Whale' or 'England' could be asserted without the use of these symbols. He says, "No logician imagines that such a language would have practical utility. He is only concerned to say that it is possible, and that its possibility is due to the nature of world-structure."[4]

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1. M. Black, in The Philosophy of Bertrand Russell, p.250.
2. E. Nagel, Ibid, p.348.
3. J.O. Urmson, Philosophical Analysis, pp. 150 ff. Russell's reply may be seen in My Philosophical Development, pp. 223-5.
4. My Philosophical Development, pp. 224-5.

Now, the difficulty of the supposed translation does not seem to be only that of the lack of sufficient knowledge and time. Of course, if the question of enumerating the constituents of a complex is involved, there is, then, one form of constructionism in which it might be an endless process. In the phenomenalist form of constructionism which Russell shares in his early theory wherein he constructs things out of their appearances, this would be the case; for the appearances of a thing could be anywhere and everywhere and present themselves under an infinite variety of conditions, and as such would be infinite in number[1] or at least of such an indefinite number as we would never be sure to have completely enumerated them. But this does not affect his later theory in which, as we shall see, he constructs things out of the events that are at the place of the thing and therefore limited in number.

It is not, however, the number of the constituents of a given complex that alone is in question. There is the objection that any list of statements about the constituents could only give us the means of referring to some particular occasion of the use of such a sentence as "The battalion is on a night exercise" or "This table is brown". And on each occasion the translation would be different with the result that the meaning of the sentence was different on each occasion. But it seems that such sentences are quite significant without reference to any specific occasion of their use.[2] To this the simple reply that in the

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1. R.J. Hirst, The Problems of Perception, p. 83.

2. Cf. G.J. Warnock, 'Empirical Propositions and Hypothetical Statements', Mind, 1951, pp. 90-94.

the world there are only specific cases seems insufficient, because it leaves the generality of the use or meaning of such sentences unexplained. Perhaps the general meaning of such a sentence is to be found in the 'respects' in which the particular cases resemble one another: there must be some similar constituents related in some similar ways. Perhaps the statements about the similar constituents and relations would give a translation of the general meaning of the sentence. But then it is not clear how these similarities are to be mentioned when no specific case is being considered. We do not seem to have any definite logical and philological rules that might help us here; and short of these it is not clear how this is possible.[1]

Some philosophers think that constructionism or logical analysis is in the main true, although the supposed translation is not possible. Carnap at a later stage came to take such a position,[2] and Urmson seems to maintain such a view in his book referred to above. Russell's final position is peculiar. He thinks that the assertion that something is a logical construction such that it is not anything new over and above the constituents and the assertion that the statements about the constituents are not equivalent to the statement about the complex are incompatible.[3]

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1. There are similar difficulties about translating sentences like "There is a car in the garage" or "There is a dog in the garden". Cf. R.J. Hirst, op. cit., p. 85.
2. Preface to the Second Edition of The Logical Structure of the World, P. VIII.
3. My Philosophical Development, p. 225.

But this has to be taken with a grain (in fact, a big pinch) of salt. For, in 'Human Knowledge',[1] he maintains a view according to which many complexes are such that the statements about them cannot be reduced to the statements about their constituents. These are what he calls the 'complexes of compresence'. He says that when several things or qualities are compresent, they form a complex of compresence. (Events or particulars, point-instants, I-now, I-then, the total states of mind or person, physical particles or minimal pieces of matter are all complexes of compresence.) He says that a complex of compresence, though defined when all its constituents are given, "is not to be conceived, like a class, as a mere logical construction", but as something which can be known and named without our having to know all its constituents. In the case of a purely logical construction, a statement about the complex can be reduced to one about its components. But a complex of compresence can "be mentioned in a way which is not reducible to a statement about any or all of its constituents".[2] A complete complex of compresence is a "single complex whole, defined when its constituents are given, but itself a unit, not a class. That is to say, it is something which exists, not merely because its constituents exist, but because, in virtue of being compresent, they constitute a single structure. One such structure, when composed of mental constituents, may be called a 'total

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1. Op. cit., pp. 315-25.
2. Human Knowledge, p. 325.

momentary experience'."[1] Such a complex is "something new" over and above the constituents;[2] and what is new in it is the "single structure" that is produced by the constituents and their relations. We may say that it is not just an aggregate but an 'organised whole' which can be treated as a unit.

Thus, Russell finally recognises two kinds of constructs or complexes, viz. complexes that are purely logical constructions (logical fictions as he sometimes called them) such as classes, and complexes of compresence that are not merely logical constructions but are also something new, each being an organised whole and possessing a single structure composed of its constituents. The statements about the former are reducible to the statements about their constituents; but the statements about the latter are not so reducible. We have generally indicated the sort of difficulties connected with the concept of the supposed translation. Throughout Russell's later theories of complete neutralism, the emphasis is on the complexes of compresence; and as he finally admits the non-reducibility of the statements about them and as we are mainly concerned with some of the complexes of this type, the question of the translation should not detain us any longer.

What Russell seems to have achieved by his epistemological use of constructions is that he has made it explicit that our ordinary beliefs about matter and mind involve inferences to

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1. Human Knowledge, p. 315.
2. Ibid. p. 325; see above, p. 105.

unknown and unverifiable 'substances', that these inferences are unnecessary, and that it is possible to entertain beliefs about matter and mind without assuming some unknown permanent entities the ground for the inference to which cannot be discovered.

The epistemological use of constructions does not require any consideration of the metaphysical status of either the particulars or the constructs. In this sense Russell is not required to say whether or not entities like matter and mind exist. But in metaphysics, such a non-committal procedure is not possible. He therefore gives to the particulars the metaphysical status of being the ultimate neutral stuff of the world, and then shows that matter and mind are constructs out of them. The sole purpose of constructions as applied to his neutral monism is to show that matter and mind are not simple permanent substances but are complex structures composed of simple elements, that both are composed of the same neutral stuff, and that there is therefore no dualism between them. It is this use of constructions which primarily concerns us, and we shall therefore consider the constructions mainly from this point of view.

Now, in the specific case of the construction of the physical world Russell has the two-fold problem: epistemological and metaphysical. Epistemologically, it is the question of justifying inferred beliefs in the existence of common-sense permanent material objects and the beliefs comprising physical sciences. One essential part of justifying scientific beliefs is what he calls the interpretation of sciences, especially physics, -- a

problem that has considerably absorbed his attention, particularly in his later works. Russell says that the interpretation of physics is important, if physics is to be taken as an empirical science. The laws of physics are generally believed to be true and the evidence for them are empirical. All empirical evidence ultimately consists of perceptions and therefore "the world of physics must be, in some sense, continuous with the world of our perceptions".[1] But perception gives us knowledge of the immediate data of sense alone such as patches of colour, sounds, tastes, etc., with certain spatio-temporal relations. But "the supposed contents of the physical world are prima facie very different from these: molecules have no colour, atoms make no noise, electrons have no taste, and corpuscles do not even smell."[2] Thus there is a "gulf between physics and perception".[3] If this is to be bridged over, physics must be so interpreted as to show that the objects of physics have some correlations with perception and are verifiable through their correlations.[4] Russell says:

> 'The evidence for the truth of physics is that perceptions occur as the laws of physics would lead us to expect .... But physics never says anything about perceptions ... ... The passage from what physics asserts to the expected perception is left vague and casual ..... We must therefore find an interpretation of physics which gives a due place to perceptions; if not, we have no right to appeal to empirical evidence.'[5]

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1. The Analysis of Matter, p. 6.
2. Mysticism and Logic, p. 145. 3. The Analysis of Matter, p.8.
4. Mysticism and Logic, p. 145; Human Knowledge, pp. 213 ff.
5. The Analysis of Matter, p. 7.

Thus the question of the interpretation of physics is the same as that of the relation of physics and perception. Russell's construction of physical objects out of percepts and other entities inferred from them as being similar to and continuous with them is supposed to serve the purpose of correlating physics with perception.

The problem of the relation of physics and perception has a metaphysical side also. The question here is: What are the ultimate existents in terms of which physics is true? Are percepts or their correlates among these ultimate existents? Here comes the question of absorbing the world of physics and the world of perception into one another. As Russell says "It belongs to this part of our subject to enquire whether there is anything in the known world that is not part of the metaphysically primitive material of physics."[1]

In his reply to criticism, Russell clearly expresses his attitude towards the metaphysical and the epistemological problems of the relation of physics and perception, and the statements he makes are relevant to the consideration of his neutral monism. He says:

> 'I wish to distinguish sharply between ontology and epistemology. In ontology I start by accepting the truth of physics; in epistemology I ask myself: Given the truth of physics, what can be meant by an organism having "knowledge", and what knowledge can it have?'[2]

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1. The Analysis of Matter, p. 10.
2. The Philosophy of Bertrand Russell, p. 700.

His justification for accepting the truth of physics is "merely a commonsense basis". The common man supposes that physics has a much better chance of being true than has this or that philosophy. "To set up a philosophy against physics is rash; philosophers who have done so have always ended in disaster."[1] Russell has elsewhere expressed the same attitude as regards the acceptance of the truth of physics. It is just for common-sense reasons that we cannot afford to ignore physics; we have to accept it "on pain of death".[2]

Thus in ontology Russell's problem is not that of the justification of physics; this belongs to epistemology. The ontological problem is that of showing that the world of physics and the world of perception consist of the same kind of "metaphysically primitive" existents, -- showing that the traditional separation "between physics and psychology, mind and matter, is not metaphysically defensible".[3] The two are brought together "not by subordinating either to the other, but by displaying each as a logical structure composed of what ..... we shall call 'neutral stuff'."[4] This is the metaphysical use of constructions with which we are mainly concerned. In what follows we shall consider Russell's constructions accordingly.

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1. The Philosophy of Bertrand Russell, p. 700.
2. My Philosophical Development, p. 17.
3. The Analysis of Matter, p. 10.
4. Ibid., p. 10.

2. Material Objects as Classes of Appearances

Russell, in his theory of 'partial neutralism' as advocated in 'The Analysis of Mind',[1] accepts sensations and unperceived 'aspects' as the constituents of the physical world. He calls them appearances. The theory of matter as maintained in this book is the one which had appeared in 'Our Knowledge of the External World'[2] and two articles which later on formed Chapters VII and VIII in 'Mysticism and Logic'.[3] One important change that is now effected is the abolition of the distinction of sensation and sense-datum; they are now identical and can be used interchangeably. Another point of difference is that whereas in the earlier works the account of matter was put forward tentatively as a "hypothetical construction" which was to fulfil certain functions but did not necessarily claim to be true, it is now advanced as a theory claiming truth.[4] With these differences in mind we can, following Russell's practices, refer to all these sources in presenting his account of material objects and matter as classes of perceived and unperceived appearances. We have seen how Russell classifies particulars into two groups, one forming a 'perceptive' and the other a 'momentary thing'. We shall now consider these in some detail.

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1. Op. cit., Chapters V, VII and XV.
2. Op. cit., Chapters III and IV.
3. A critical exposition of the theory is to be found in C. Fritz, op. cit., Chapter IV, Part I.
4. W.T. Stace, op. cit., p. 355 footnote.

The appearances that constitute the physical world are our own sensations, the sensations of other people and unperceived appearances or 'sensibilia'. These momentary particulars in their various correlations form the material objects or 'things' of common-sense and the 'matter' of physics. To understand these correlations, the most natural way is to begin with our own sensations and their correlations, and then to add up to them other particulars. Each individual possesses at any given moment various sensations of different things of his environment, obtained from his visual, tactual, auditory and other senses. His perceptual experience of the moment consists of a set of sensations giving him a momentary view of the world; and his life-long experiences would consist of all the views or sets of sensations he has ever had.

Now, the sensations of one sense form a 'world' peculiar to that sense with spatial relations determined by these sensations. Thus the sensations of sight are given as spatial in sight-space, the sensations of touch as spatial in tactual space, and so on for the other senses. The one inclusive space of the individual's perceptual experiences is a construction from the 'spaces' of the different senses made by variously correlating the sensations of one sense with those of others. This construction makes it possible for him to say that the object he is seeing is at the same place as the one he is touching, and so on. Russell maintains that this correlation is learned in our early childhood.[1]

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1. Our Knowledge of the External World, second ed., p. 118; Mysticism and Logic, p.159; The Analysis of Matter, p.252.

The momentary set of sensations of an individual is the view of the world that he has at one moment; this Russell calls a 'private world'. The private world of an individual at any moment is a perspective; and this is called a 'perceived perspective'. He defines the perspective to which a given sensation belongs "as the set of particulars that are simultaneous with this sensation"[1], where 'simultaneous' is to be understood "as a direct simple relation, not the derivative constructed relation of physics".[2] He intends to avoid in this definition any reference to a perceiving subject, and thereby to include unperceived perspectives also. "Thus a 'private world' is a perceived 'perspective' but there may be any number of unperceived perspectives."[3] A perceived perspective is a momentary set of sensations of an individual; at different moments he has different sets of sensations, which can be said to form a series of sets of sensations. The complete series of such sets of sensations that the individual has ever had in his life, is what forms his 'biography'. But just as there are perspectives which are not perceived, so also there may be biographies which are not lived by anyone. Thus the biography to which a given particular belongs is defined as "the sum-total of all the particulars that are (directly) either simultaneous with or before or after a

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1. The Analysis of Mind, p. 128.
2. Mysticism and Logic, p. 141.
3. Our Knowledge of the External World, second ed., p. 95.

given particular".[1] A biography that is not lived by any one is called an "official" biography.[2]

The private world of which one can be certain is only one's own. But Russell accepts the beliefs that there are other people having their private worlds and that there are unperceived perspectives. We have seen his arguments for accepting the percepts of other people and unperceived particulars. Now, two perspectives, whether of the same individual at different places or of different individuals, are never exactly alike, but are very often similar. Thus an individual will have different perspectives with the continual change of his bodily state or position. Moving around an object he will have a sequence of perspectives containing changing sensations or appearances of the object. He can correlate the changing appearances of the object into a series. Admitting the testimony of other people, we find that they also have sequence of perspectives containing similar appearances of the object. It becomes thus possible to correlate the similar 'aspects' of different perspectives, our own and also those of other people; to these we may add the unperceived aspects belonging to unperceived perspectives. It is the establishment of such correlations between similar perspectives that gives us a basis upon which we can define material objects as classes of correlated appearances. Thus Russell says:

> 'By the similarity of neighbouring perspectives, many objects in the one can be correlated with objects in

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1. Mysticism and Logic, p. 141; The Analysis of Mind, p. 128.
2. Mysticism and Logic, p. 141.

> the other, namely with the similar objects. Given an object in one perspective, form 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.'[1]

The 'thing' so explained has, according to Russell, the merit of being neutral as between different points of view, and of being observable to more than one person in the sense that each observes one of its aspects.[2] According to this view, a piece of matter or a physical thing is not a single existing thing but a system of existing things. When a number of people simultaneously see a table, they all see something different. 'The' table is to be neutral as between different observers. Therefore, common-sense mistakenly supposes that there exists a 'real' table as the common cause of all the appearances which 'the table' is said to present to different observers. But Russell thinks (at this stage) that "the notion of 'cause' is not so reliable as to allow us to infer the existence of something that, by its very nature, can never be observed".[3] He therefore suggests that instead of looking for a common unknown cause of the sensations of various observers, we can secure the desired neutrality by the equal representation of all 'parties', that is, by taking the whole set of these sensations together with the unperceived appearances correlated with them as actually being the table. In other words, the table which is neutral as between different observers and different points of view, is the set of all those particulars which would naturally

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1. Our Knowledge of the External World, p. 96.
2. Ibid., pp. 96-7; The Analysis of Mind, pp. 97-8.
3. Ibid., p. 97.

be called aspects or appearances of the table from different points of view.[1]

A 'momentary thing' is thus the set of all particulars, perceived and unperceived, which may be defined as appearances of the thing at one moment. We can now define "the successive states of one thing" as "the series of momentary things" correlated according to laws governing changes of aspects from one time to a slightly later time. "Thus the momentary thing is a set of particulars, while a thing (which may be identified with the whole history of the thing) is a series of such sets of particulars. The particulars in one set are collected together by the laws of perspective; the successive sets are collected together by the laws of dynamics."[2]

Here we find the answer to a question that naturally arises in connection with the above account of material objects. The thing is identified with a class of correlated appearances; there is no single permanent substance as the common cause of these appearances. The question is: On what basis can we collect this class of appearances without employing the notion of a permanent substance? Why do we distinguish one series of appearances as being the 'thing' rather than some other series of appearances? Things are continuous series of similar appearances. From this, it might be supposed that similarity and continuity were the sole grounds upon which aspects were arranged into groups. But Russell does not think that these are sufficient grounds. Similarity is

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1. The Analysis of Mind, p. 98.
2. Ibid., p. 126.

not a sufficient condition; for two similar things would present similar appearances, and we should be able to distinguish them. Continuity, again, is neither a necessary nor a sufficient condition.[1] It is not a necessary condition because it is largely hypothetical; we do not observe any one thing continuously. It is not a sufficient condition, because in some cases there is sensible continuity between appearances of separate objects; for example, there is sensible continuity between drops of water in the sea; but we should be able to define 'drops' and distinguish a current within water. It is therefore necessary that a class of appearances to be defined as a 'thing' should, besides being similar and continuous, conform to laws. Thus a momentary thing is a set of particulars collected together by the laws of perspective;[2] and the series of momentary things which constitute one 'permanent' thing are collected together by the laws of dynamics.[3] Thus series of appearances belonging to one 'thing' behave, with regard to the laws of physics, "in a way in which series not belonging to one thing would in general not behave. If it is to be unambiguous whether two appearances belong to the same thing or not, there must be only one way of grouping appearances so that the resulting things obey the laws of physics."[4] Russell thus lays down this definition: "Things are

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1. Mysticism and Logic, pp. 170-1; Our knowledge of the External World, p. 114.
2. The Analysis of Mind, pp. 125-6.
3. Ibid., pp. 125-6; Mysticism and Logic, p. 172.
4. Ibid., pp. 172-3; Our Knowledge of the External World, p.115.

those series of aspects which obey the laws of physics."[1]

We have seen that an individual's percepts determine their own space, and that his private space is constructed from the correlations between the 'spaces' of his different senses. Each perspective, perceived or unperceived, has its private space, and Russell constructs the all-embracing public, physical or perspective space by correlating the private spaces of perspectives. He places material objects in this public space.[2] This may be illustrated with a penny which appears in many perspectives. The penny will appear in one perspective as larger than in another perspective, in some perspectives as round and in others as elliptical, in some perspectives in one colour and in others in another colour, and so on. We can arrange in a straight line the perspectives in which the penny looks round according to the varying sizes of the appearances. We thus form a continuous series of these perspectives, and can imaginatively prolong the line indefinitely. Similarly we can form another straight line consisting of the perspectives containing elliptical appearances of the penny, and so on for other kinds of appearances of it. These straight lines will meet at a certain place in the perspective space. It is this place of intersection of these lines which is "defined as the place (in perspective space) where the penny is".[3]

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1. Our Knowledge of the External World, pp. 115-6; Mysticism and Logic, p. 173.
2. Ibid., pp. 162 ff; Our Knowledge of the External World pp.98 ff.
3. Ibid., p. 98; Mysticism and Logic, p. 162; The Analysis of Matter, p. 208.

Now, every particular is at once a member of two groups, namely the group making a thing to which it belongs and the group making a perspective to which it belongs. Accordingly, two places in perspective space are associated with every particular, namely the place in perspective space where the thing is and the place in perspective space where the perspective is.[1] Russell calls these two places the 'active' and the 'passive' places respectively, using them as mere names without implying any idea of activity at all.[2]

The perspectives containing a large appearance of a thing are 'nearer' the thing than those containing a small appearance. But there is a limit to the closeness we can get to any object, "because so far as experience goes, the penny ceases to present any appearance after we have come so near to it that it touches the eye".[3] At the place in perspective space which is defined to be the place of the thing, there may not be any appearance of the thing; it is the centre about which the appearances are arranged into a group, the whole group being the thing of common-sense. As Russell says, "As a rule ..... the centre ..... contains no member of the group, not even an ideal member: 'the eye sees not itself'. A group, that is to say, is hollow; when we get sufficiently near to its centre it ceases to have members."[4]

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1. Our Knowledge of the External World, p. 100; Mysticism and Logic, pp. 162-3; The Analysis of Mind, p. 130.
2. Ibid., p. 130.
3. Our Knowledge of the External World, p. 98.
4. The Analysis of Matter, pp. 211-2. Cf. also C. Fritz, op. cit., pp. 150-1; A.O. Lovejoy, op. cit., pp. 243-5.

The 'physical thing' of common-sense is defined as the class of its appearances that fall into a group about a centre which is defined to be the place of the thing. Russell thinks that this can hardly be taken as the definition of 'matter' of physics. The appearances of a thing from different places change partly according to laws of perspective and partly according to the nature of the intervening medium. We should be able to express the fact of the influence of the medium as also of the 'matter' of the thing on the appearances in question. It is therefore desirable to construct 'things' and 'matter' differently. The difference, however, is not one of procedure, but that of the appearances which are included in the construction. The 'thing' consists of all its appearances from every point of view at varying distances and through all sorts of media. But the 'matter' of the thing is to be constructed out of those appearances only which are not at a great distance from the thing and which are not seriously affected by the intervening medium. Thus in 'Mysticism and Logic' Russell offers the following tentative definition:

> 'The matter of a given thing is the limit of its appearances as their distance from the thing diminishes.'[1]

Russell feels that this definition is not quite satisfactory but that it suggests the right direction in which to look. In 'The Analysis of Mind'[2], he defines 'matter' in terms of the

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1. Mysticism and Logic, p. 165.
2. Op. cit., pp. 106-7.

"regular appearances" which are not affected by the intervening medium at all. If we construct hypothetical systems of appearances of an object approaching nearer and nearer to it, we shall finally "approach to a limiting set, and this limiting set will be that system of appearances which the object would present if the laws of perspective alone were operative and the medium exercised no distorting effect".[1] This limiting set which is an "ideal system of regular appearances" is defined, for purposes of physics, to be the 'matter' of the thing; 'matter' in this sense is only a "logical fiction, invented because it gives a convenient way of stating causal laws".[2]

We have seen that Russell distinguishes between 'active' and 'passive' places of an appearance. The material object is a group of appearances collected about the same active place; and a perspective (as well as a biography) is a collection of appearances at the same passive place. Now, as the place of a thing (in this sense an active place) can also be the place of a biography (in this sense a passive place), the result is that there is a "dualism of body and biography in regard to everything in the universe".[3] But this, Russell points out, does not imply a mind-body dualism; for this is present not only in the case of living beings but also in the case of non-living things. Thus "the photographic plate has its biography as well as its 'matter'.

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1. The Analysis of Mind, p. 107.
2. Ibid., pp. 107, 300.
3. Ibid., p. 129.

But this biography is an affair of physics, and has none of the peculiar characteristics by which 'mental' phenomena are distinguished, with the sole exception of subjectivity."[1] The biography and the body (or material object) are thus two distinct groups at one and the same place such that no member of the one is a member of the other. Strictly speaking, the former is a group of appearances collected "passively" 'at' the place in question, whereas the latter is a group collected "actively" 'about' the same place. Thus the 'biographical particulars' in the photographic plate are not among the stuff of the plate as a material thing.

Now, in the theory as presented above, Russell calls material things logical constructions. By this he does not, however, deny that there are things such as chairs and tables. What he means is that they are not simple single permanent things but are complex structures composed of 'simple' particulars or appearances. The significance of Russell's account of the physical world lies not in denying the existence of physical objects, but in defining the sense of such expressions as 'material objects', 'things', etc., and in showing that physical objects as complexes are composed of elements that are constituents of mental phenomena as well.

It may have been noticed that, in presenting Russell's theory of material objects, I have avoided such expressions as "the external world", "external objects", and "external things".

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1. The Analysis of Mind, p. 131.

For, the epithet "external" as found in these expressions is not consistent with Russell's neutral monism. "External" and "internal" have the old metaphysical implication of a dualism of matter and mind with their spatial separation such that "internal" is supposed to apply to the mental world and "external" to the physical world. But in a theory of neutral monism, it is this dualism which is rejected; and if Russell's theory is correct, the physical world cannot be said to be external to mind; on the contrary, in so far as material objects and mind are composed of the same neutral stuff, they overlap. There is, I understand, a sense in which 'things' are external to our body, and also a sense in which a material object may remain external to any mind in so far as it may not be perceived by anyone;[1] but neither the former nor the latter is implied when the physical world and physical objects are traditionally called 'external'. Traditionally, the physical world as a whole is said to be external to mind; and neutral monism is incompatible with this idea. It will, therefore, be a mistake to call Russell's theory the "construction of the external world". Charles Fritz seems to have failed to notice this important point about Russell's position; the very title of his book on the subject is thus misleading. I suspect that he took up that title from that of Russell's pre-neutralistic work 'Our Knowledge of the External World'; but his discussions are not confined to the theory of this book, they include most of Russell's later views which are all neutral monistic. But it is

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1. Russell sometimes uses the word 'external' in these senses.

worth noticing that the appellation in question cannot be given to the material world as conceived in Russell's neutral monism.

In evaluating the above theory of matter we should consider how far it fulfils the purposes it is supposed to serve. One important motive is the abolition of dualism. Another is to construct material objects out of 'verifiables' only in order to show that there is no unknown and unknowable permanent entity called 'material substance' or 'thing-in-itself'. A third motive is to solve the problem arising out of 'the relativity of sensations'.[1] Besides, there are those epistemological purposes which we mentioned in the preceding section, wherein I stated whatever comments I had to make in regard to them.

The problem of the relativity of sensations is an epistemological one which we have not so far considered, but which must be solved in a theory of physical objects. The problem may be stated as follows: When several people simultaneously see an object, they all are supposed to see the same thing. But the appearances they see are not the same. To one person the object may look round, to another elliptical; to one it may look red, to another green. The common-sense view that they all see the same identical thing entails that the red thing is at the same place as the green one, that the round thing is at the same place as the elliptical one. But this is impossible; for red and green, round and elliptical, are mutually exclusive. This is the puzzle which Russell's theory is supposed to solve.

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1. These three objectives are mentioned by W.T. Stace in his article in The Philosophy of Bertrand Russell, pp. 363 ff.

Now, there is, as Stace points out,[1] only one possible principle for solving this problem, namely to suppose that the appearances with opposed qualities do not exist at the same place. Berkeley adopted this principle in so far as he thought that the aspects with opposed qualities exist only as sensations in different minds; as there are different private spaces in different minds (which are not, however, in space), the red aspect is in the private space of one mind while the green aspect is in the private space of another mind, and so on. For Russell also, the different aspects are not at the same place; they are spread out through space[2]; there is no appearance at the centre which is defined to be the place of the thing. Thus the red circular aspect one person sees is at the place where he is or rather his head or brain is, and the elliptical green aspect is at the place where another person's head is. But Russell's solution of the problem should not be supposed to rest only on the principle of the variation of characteristics of appearances according to the spatial position of the percipient; this alone would not explain such differences as are experienced by two persons who may take the same position at successive moments and see an object as red and green respectively. This principle, therefore, has to be taken in conjunction with the principle of

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1. W.T. Stace, op. cit., p. 372.

2. Russell seems to have accepted this idea from T.P. Nunn; cf. the latter's article 'Are Secondary Qualities Independent of Perception?', Proceedings of Aristotelian Society, N.S.X (1909-10), pp. 191 ff.

the subjectivity of sensations. We have seen that according to Russell all qualities are subjective and that he adopts the generative theory of realism in respect of all qualities of appearances. Thus these two principles together solve successfully the problem arising out of the relativity of sensations.

As to the success of the above theory in constructing material objects out of 'verifiables' only, the question must depend on what is meant by 'verifiables'. We have seen that Russell uses the term 'verifiable' in a wide sense to include not only what we ourselves or even human beings generally experience but also such particulars as can be inferred from what we experience in accordance with the recognised canons of scientific method.[1] Accordingly, his theory may be said to fulfil the purpose of constructing material objects out of verifiables only. But many thinkers would perhaps object to treating unperceived particulars as verifiables, for they might like to restrict the use of the term to such entities as are actually experienced by us. In that case, the question is whether we are entitled to accept entities which are not verifiables in this strict sense. If we are not, it would obviously be impossible to get out of 'scepticism of the moment', a position which few philosophers have in fact entertained. Science and common-sense do assert entities beyond what is actually experienced, so also do most philosophers. Russell does the same thing. In what his position differs from that of many others is that he

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1. See above, pp. 136-7.

refuses to assert entities which are unlike anything conceivably experienced by us. Thus, material objects of common-sense and 'matter' of science are entities the like of which we never experience, and can therefore be asserted only on risky grounds. But the particulars accepted by Russell on the basis of continuity and resemblance (and supported by the laws of physics) are never completely unlike what we experience. Accordingly the inference to such particulars is perhaps better grounded than the inference to material objects. Russell's constructions, therefore, seem more reasonable than the assumption of the permanent material substance.

Thus, it seems reasonable to admit particulars other than those we actually experience. Whether we should call them 'verifiables' is a matter depending on how we define 'verifiables'. There seems nothing objectionable in accepting Russell's use of the term in an extended sense to include such particulars as can be inferred in accordance with scientific methods. This wider notion of 'verifiables' allows for degrees of verifiability and, therefore, degrees of certainty that we can attain in respect of our beliefs; and the concept of degrees of reasonableless or certainty in matters of rational beliefs seems to deserve a place in our philosophies.

The assertion of the existence of unperceived particulars and their inclusion in the construction of material objects are very important in Russell's theory of matter, Without them his position would not have differed significantly from that of Berkeley; for in that case, material objects would consist, for

him as for Berkeley, only of actual sensations. But the inadequacy of Berkeley's position is what Russell intends to avoid. He therefore accepts them as real constituents of the physical world.

The abolition of the psycho-physical dualism is the most important objective of the theory under consideration. But it is here where the theory fails most. The unperceived appearances which Russell admits as part of the stuff of the physical world, are now regarded by him as "purely physical"; they are not neutral. This is one reason why this theory is only partially neutral; and this makes it impossible to abolish psycho-physical dualism. In so far as there are "occurrences that do not form part of any experience" and are therefore "purely physical",[1] it is clear that there is dualism. The most that Russell may be said to have done is that he has shown material objects to consist, partly at least, of sensations which constitute mental phenomena as well. If this is found successful, he has then considerably, but not wholly, bridged over the gulf between mind and matter. But this would not mean abolition of dualism, and as such it is reasonable to doubt the validity of calling this theory 'neutral monism'. Stace says that it is difficult to see how Russell can have "one foot in the dualist camp and the other in the monist".[2] It may however be possible in a philosophy to combine some neutral

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1. We said earlier (pp. 144-5) that Russell could perhaps avoid this and regard 'sensibilia' as neutral even on the basis of his early criterion. But in fact he did not; and hence the dualism in this theory of matter.

2. W.T. Stace, op. cit., p. 364.

elements with some dualistic ones. But I do not think that such a philosophy could be properly called 'monism'. I have therefore called Russell's metaphysics of this stage 'partial neutralism' rather than 'partial neutral monism'.

The failure to abolish psycho-physical dualism is, of course, the main objection to Russell's theory of this stage. But the theory also involves some other difficulties. One of them concerns the statement that there is a dualism of body and biography in regard to everything in the world. The photographic plate, for example, has a body and a biography; but according to Russell's definition of material objects, the biographical elements are not among the stuff of the plate as a physical thing. This biography is a physical affair and belongs to the plate. And yet the plate as a thing cannot, and does not, possess as its constituents the particulars of its biography. These seem to be contradictory statements. If the plate has a body and a biography, it consists of both; both are physical; therefore the plate as a physical thing should be defined as the whole class of particulars composing the body and the biography. But Russell seems to identify the thing as being the one, and not the other. This, of course, accords with his refusal to admit any constituents of the thing at the centre which is the place of the thing; and the biographical elements are all at the centre and are not therefore constituents of the thing. Yet the biography is of the thing, though it is not a part of it. This is an inconsistency; it is difficult to see how a thing can have a body and a biography,

and at the same time be wholly the one and not the other also.

Similar inconsistency is to be noticed in respect of Russell's use of the notion of cause. He says that this notion is not very reliable and that we cannot suppose a 'table' as the common cause of the table-appearances perceived by various observers. The table-appearances are not caused by any 'table'. Yet he says, "The appearance of a star at a certain place, if it is regular, does not require any cause or explanation beyond the existence of the star ... a regular appearance is due to the star alone ..."[1]

The concept of the "hollow centre" defined as the place of a thing offers another difficulty. We have seen[2] that it raises questions as to how causal contact (e.g. the stimulation of sense-organs) is possible when there is no member of the group at the centre where the 'contact' is supposed to take place. We have then said that the centre as the limit of analysis could perhaps be taken as very small and that the appearances in its immediate neighbourhood could explain the causation in question. But this explanation is possible only on the basis of Russell's later theory and not on the basis of the theory now under consideration. In 'The Analysis of Mind' he suggests that the particulars sufficiently near the place of the thing can be taken as a causal unit.[3] But difficulty arises from the assertion which seems

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1. The Analysis of Mind, p. 134.
2. See above, p. 113.
3. Op. cit., p. 106.

characteristic of the present position, namely that the centre of the group is not a point, "but a volume which may be as small as an electron or as large as a star".[1] Now, if the whole area which is the place of our brain or of a house is hollow, even its nearest appearances will be at quite a distance from most parts of the place, and any causal contact at these parts would be rather implausible and would involve 'action at a distance'. Thus there is an oddity about the concept of the 'hollow centre'; and although oddity and implausibility are not logical objections, they are good reasons for doubting the truth of a theory.

These difficulties may be said to be due to the very concept of analysis of physical things in terms of appearances. Appearances of a thing are ordinarily regarded as being different from the thing. 'Appearance' usually implies something appearing to some one. Russell, of course, warns us against this. For him, there is nothing of which a particular is an appearance; appearances are the only 'realities' that are there in the world. But I suspect that he has not been able to get rid of the ordinary implications of the word 'appearance'. The idea that an appearance of a thing is not and cannot be at the place of the thing is

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1. This statement occurs in 'The Analysis of Matter' (p. 217); but it refers more characteristically to the position we are now considering. In this book as also in subsequent works, this assertion is later modified, and the construction of physical objects in the above form is supplemented by the construction of electrons or the 'minimum material units', which may be taken as pushing the centre to its minimum. In fact, in his later theories Russell abandons the concept of the 'hollow centre', which is, however, a characteristic of the theory now under consideration. (cf. p. 193 below).

a characteristic consequence of the ordinary concept that an appearance of a thing is different from the thing. In asserting the consequence Russell is, in fact, assuming the premise itself. That the idea of the common-sense thing is at work at the back of his mind is to be noticed in many of his statements. He says, for example, that "the penny ceases to present any appearance after we have come so near to it that it touches the eye".[1] Here 'near to it', 'it touches the eye', etc., are expressions that indicate how Russell is using the common-sense notion of things. We have already said that he uses such expression as "appearances due to the star" and so on. It is not necessary to cite many more examples of his uses of similar expressions. We need only to notice that in his exposition of the theory he has not been able to dispense with common-sense notions altogether. This has been emphasised by many commentators[2] and hardly needs elaborations.

Indeed, Russell's theory of matter at this stage has not been fully satisfactory. We have pointed out several difficulties involved in it. Russell himself has realised some of these defects and has accordingly revised his account of material objects and matter. It is this revised theory which we shall now proceed to consider.

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1. See above, p. 173.
2. E.g., A.O. Lovejoy, op. cit., pp. 255 ff; C. Fritz, op. cit., p. 163.

3. Material Objects as Structures of Events

The account of material objects and matter that Russell produces in 'The Analysis of Matter' and the later works is designed to give a more adequate view of the world than the earlier account provided. His construction now includes, not only what he formerly called perceived and unperceived appearances, but also further unperceived events. All particulars, perceived and unperceived, are called events, and all events are regarded to be of the same kind; they are all now neutral particulars. Accordingly, his theory takes the form of 'complete neutral monism'.

The procedure of construction in the revised theory is basically the same as in the earlier theory. The new theory is to be viewed as a modification, rather modifications, of the old one. In order, therefore, to understand this new position, it is only necessary to notice the developments that are made from the earlier position. The modifications are not, however, made all at once. Although most of them are effected in 'The Analysis of Matter', some are introduced in 'An Outline of Philosophy'. We should rather say that the theory of matter produced in this former work undergoes a further major change in the latter work. It is the theory of the latter work that has been adopted and advocated in all subsequent works of Russell. It is therefore possible to maintain that the theory in 'The Analysis of Matter' is an intermediate link between the earlier theory discussed above and the final theory developed in the later works.

In 'The Analysis of Matter', as also in his later works, Russell, in the first place, calls all particulars 'events' and does not make much use of the earlier term 'appearance'. This makes it possible for him to avoid the difficulties connected with the word 'appearance'. Moreover, 'event' as a term can be used with a wider denotation to include particulars that cannot all be called appearances. Images cannot possibly be called appearances, and so also perhaps such particulars that are now regarded as unperceivable causal particulars. But they can all be called events; and in fact the whole world, for Russell, is now a complicated system of events correlated according to causal laws.

Secondly, one of the most fundamental points of departure from the earlier position is that Russell now accepts the causal theory of perception. Previously he did not consider the notion of 'cause' as at all reliable to guarantee inferences to unperceived entities. He now accepts and uses the causal theory of perception as the main ground for inferring the existence of unperceived events. We have noted his reasons for accepting this theory.[1] At a later stage he expresses his conviction as to the legitimacy of the theory in the following words:

> 'I have been surprised to find the causal theory of perception treated as something that could be questioned. I can well understand Hume's questioning of causality in general, but if causality in general is admitted, I do not see on what grounds perception should be excepted from its scope.'[2]

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1. See above, pp. 100-1.

2. The Philosophy of Bertrand Russell, p. 702.

The acceptance of the causal theory of perception leads Russell to assert, not only unperceived 'sensibilia', but also unperceivable events,[1] the inclusion of which forms a third point of difference. The reason for employing these additional events arises from his desire for a more adequate metaphysical theory than the previous one; these events, he thinks, provide a view of the world that more nearly accords with common-sense and attains a sort of completeness which the earlier theory could not achieve. He had already admitted unperceived particulars, namely the percepts of other people and unperceived appearances. He now says, "If we have once admitted unperceived events, there is no very obvious reason for picking and choosing among the events which physics leads us to infer."[2]

The acceptance of the causal theory does not, however, require the existence of a permanent material substance. The material object is still a construction; only that it now includes more events than those previously used. The physical thing is now a group of events, including our own percepts, percepts of other people, and unperceived events (some of which are unperceivable) that are causally continuous with percepts. Even 'images', and in fact all "mental states",[3] are now included among the stuff of the physical world (i.e. of the brain), --- a fourth point which

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1. See above, pp. 135-6.
2. The Analysis of Matter, p.325; An Outline of Philosophy, p.302.
3. This phrase as used by Russell needs clarification. See below, p. 194.

makes the new theory fundamentally different from the earlier one, a point which, as emphasised more and more in Russell's later works, marks the beginning of the development of modern 'Identity Hypothesis'.[1]

We have said that the procedure of construction in the new theory is basically the same as in the earlier theory. But this needs a little modification. In the earlier theory Russell constructed two groups of particulars, namely the material thing and the biography (or series of perspectives); he then kept them separate, though inconsistently. The material object did not then include biographical elements. But in the new theory he combines the two and constructs the physical object as the totality of the two groups. In 'The Analysis of Matter' he does this in two steps. He first gives a construction of the physical object[2] as consisting of our percepts, the percepts of others, and unperceived events. Up to this point, his construction is very much the same as the earlier one with the sole difference that he now includes unperceivable events. This group of events occur as arranged about a centre which is hollow and "as small as an electron or as large as a star".[3] He then proceeds to give a construction of matter, more properly of electrons and protons[4] composing physical objects. This latter construction is so infused into the former that the physical thing becomes a combination of the two. That Russell intends this infusion is

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1. See below, pp.
2. The Analysis of Matter, Chapter XX.
3. Ibid., p.217.
4. Ibid., pp. 319 ff.

evident from the fact that having given the construction of electrons he immediately returns[1] to the views suggested in the former construction with a view to completing the account of material objects and matter.

Russell thinks that "we must find some reality for the electron, or else the physical world will run through our fingers like a jelly-fish."[2] But he does not think electrons to be part of the ultimate stuff of the physical world; they are real in the sense that they are groups of events. He explains this by way of constructing the electrons of our brain. We do not, Russell says,[3] know much about the contents of any part of the world except our own heads; our knowledge of other parts is only abstract. But we know our percepts, thoughts and feelings more intimately; and these are in our brain. He says:

> 'What is in the brain by the time the physiologist examines it if it is dead, I do not profess to know; but while its owner was alive, part, at least, of the contents of his brain consisted of his percepts, thoughts, and feelings. Since his brain also consisted of electrons, we are compelled to conclude that an electron is a grouping of events, and that, if the electron is in a human brain, some of the events composing it are likely to be some of the "mental states" of the man to whom the brain belongs. Or, at any rate, they are likely to be parts of such "mental states" ..... This, I think, is the most concrete statement that can be made about electrons; everything else that can be said is more or less abstract and mathematical.'[4]

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1. The Analysis of Matter, p. 322.
2. Ibid., p. 319. Russell intends the construction of electrons to be that of protons also.
3. Ibid., pp. 319-20.
4. Ibid., p. 320.

Russell thus concludes that "an electron at an instant is a grouping of events ..... Obviously it includes all the events that happen where the electron is".[1] The size of the electron, whether finite or infinite, is not important; but "it will save circumlocution to speak of the electron as a point".[2] The term 'point' or 'point-instant' is defined as a minimal place in space-time occupied by a group of events having two properties, namely that "any two members of the group are compresent", and that "no event outside the group is compresent with every member of the group".[3] 'Compresence' is another name for 'overlapping' of events in space-time; any two events are said to have the relation of compresence when they "overlap in space-time".[4]

An electron is thus a complex of events. This has to be combined with the view of physical objects according to which "events occur, usually, in groups arranged about centres. These centres may be taken to be the places where there is matter. ... ... The centre is 'where the piece of matter is' ..... But as to what are the actual events at the centre, we know nothing except what follows from the fact that our percepts and 'mental states' are among the events which constitute the matter of our brain."[5]

Several results follow from the above account of matter.

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1. The Analysis of Matter, pp. 320-1.
2. Ibid., p. 321.
3. Ibid., p. 295; An Outline of Philosophy, pp. 288-9.
4. Ibid., p. 294.
5. Ibid., p. 322.

The centre, "where the piece of matter is", is not in fact empty.[1] It contains the matter of the thing; the matter consists of electrons and protons, but electrons and protons are only groups of events. As each electron or proton is a point, the centre where the thing is consists of a complicated system of events; in fact it contains as many points or centres, and groups, as there are electrons and protons in it. Accordingly a physical thing or piece of matter, for example a table, is a very complex system consisting of our percepts, the percepts of others, and the unperceived events including a 'central system' of events.

Now, this central system consists, partly at least, of such events which in the earlier theory were regarded as the biographical elements'.[2] This follows from the fact that our percepts and 'mental states' constitute part of the stuff of our brain. Formerly my percept of a table was a member of the group making the table and a member of the biography at the place of my brain; my brain was not composed of my percepts, but of its appearances. But now my percepts are among the stuff of my brain; the brain now consists of all the events which formerly formed two separate groups, body and biography. This is true of all physical things, only that we do not know what the central events are except in the case of our own brain.

Not only our percepts but also our thoughts and feelings, in fact all mental states are constituents of the matter of the

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1. This settles the difficulty connected with the earlier concept of a hollow centre. See above, pp. 113-4,

2. See above, pp. 175-6, 183.

brain.[1] Thoughts and feelings and other 'mental states' are not, however, simple elements. In this sense, these expressions are misleading; we should not suppose them to be among the ultimate constituents of the brain. All mental states including thoughts and feelings are, according to Russell, complexes of percepts and images in their various correlations. Accordingly, we must interpret Russell as maintaining that the brain is composed of percepts and images, besides other events. This brings out a difference of the present theory from the earlier one in which images were not constituents of matter; but now they are. Images are now constituents of both mind and matter, whereas previously they belonged to the former only.

Now, this is a consequence of the present theory, which is sometimes overlooked but which needs emphasising. The view that images constitute part of the stuff of both mind and matter is adopted in Russell's subsequent works as well. This is one of those points of difference, the recognition of which would properly direct the attention of the critics more to the later views than to those of 'The Analysis of Mind'. This is one of our reasons for saying earlier that Quinton's rejection[2] of Russell's neutral monism is not very proper. One of Quinton's arguments concerns the point that images in Russell's theory are constituents of mind alone. This is correct as regards his earlier position; but this

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1. This is the basic thesis of 'identity hypothesis'; see below, pp. 296 ff.

2. A. Quinton, 'Mind and Matter', in Brain and Mind (J.R. Smythies ed.) pp. 216-7.

does not even touch the position that is being explained here. If Quinton is to reject Russell's neutral monism, he has to repudiate this later position. In another argument Quinton suggests that according to most theories of neutral monism, "experiences are not literally parts of physical objects".[1] It is not clear what he means by 'literally parts of'; but as against Russell's present position this seems quite inapplicable. 'Experiences' in this quotation are taken as part of the ultimate stuff of the world. For Russell percepts and images make all 'experiences'; and if our analysis is correct, these, then, are as much constituents of matter as they are constituents of mind. Quinton's arguments therefore fail to refute Russell's position as explained above.

We may now come to another consequence of the present account of matter, which concerns our percepts. In the earlier theory, a percept is a constituent of a mind and of a physical object. In the new theory, it enters at once into the constitution of three different complexes, namely a mind and two physical things, -- a point which often passed unnoticed, but which is a peculiarity of the theory of 'The Analysis of Matter'. Thus, my percept of a table, for example, besides being among the stuff of my mind, is a constituent of the table and a constituent of my brain. This three-fold role as assigned to our percepts leads to two very important results; one concerns the relation of mind

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1. A. Quinton, 'Mind and Matter', in Brain and Mind (J.R. Smythies ed.), p. 216.

and matter, and the other the relation of our brain and other physical things.

The first result is this. In 'The Analysis of Mind', the two ways of classifying appearances into matter and perspective (or biography) formed a fundamental basis for distinguishing matter and mind, physics and psychology. The perspective (with additions) at the place of a human brain was a mind. This particular perspective was constituted by all the sensations or percepts obtained by the percipient at one moment; it was a group 'passively' collected at the 'passive' place of the percepts, whereas a piece of matter was a group 'actively' collected about the 'active' place of percepts and similar appearances.[1] In the present theory, the percepts form both mind and brain (i.e. matter); and they do so as collections at the same 'passive' place. It follows that the distinction of 'passive' and 'active' places with the corresponding classification of events at and about them does no more form a basis for distinguishing mind and matter. However, Russell still thinks that the difference of mind and matter is a difference of arrangements of events, but it is not a difference of arrangements about two different places, but a contextual difference relating to two different causal laws.[2]

The second result which follows from the three-fold role of

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1. See above, pp. 173, 175-6.

2. An Outline of Philosophy, p. 300; Portraits from Memory, p. 152; see below, pp.

percepts is rather puzzling. My percept of the table is at once a constituent of the table and of my brain. Thus a 'part' (constituent) of my brain is a 'part' (constituent) of the table, and 'vice versa'; and this is true of each of my percepts. But this is not the usual conception of physical things; neither common-sense, nor science, regards a part of my brain to be a part of a table. It sounds absurd to say that as I eat a meat-pie I also eat a part of my brain, or that in burning the rubbish heap in my garden I actually burn a part of my brain too. This also opposes the much emphasised assertion of Russell's that the table as a physical thing is outside the physical thing 'brain'; but the inconsistency follows naturally from his inclusion of the same percept in the constructions of both the table and the brain.

Russell perhaps comes to realise this difficulty. In 'An Outline of Philosophy', he abandons the three-fold role of our percepts and thereby effects a major modification of the theory we have discussed above. In this work, he no more regards our percepts as part of the stuff of the physical objects such as tables and chairs; the only physical thing of which they are constituents is our brain. He comes to emphasise more and more the construction of what we have described as the 'central system' in the above analysis of physical things; and he recognises this 'central system' as being the physical object and thus brings his theory of matter closer to common-sense. Our percepts as well as 'mental states' constitute our brain and not the things outside our body; percepts thus come to have a two-fold role in the

final version of Russell's neutral monism; they are constituents of mind and of the brain. Thus he says,

> 'I take it that, when we have a percept, just what we perceive ..... is an event occupying part of the region which, for physics, is occupied by the brain. In fact, perception gives us the most concrete knowledge we possess as to the stuff of the physical world, but what we perceive is part of the stuff of our brains, not part of the stuff of tables and chairs, sun, moon, and stars. Suppose we are looking at a leaf, and we see a green patch. This patch is not "out there" where the leaf is, but is an event occupying a certain volume in our brains during the time that we see the leaf. Seeing the leaf consists of the existence, in the region occupied by the brain, of a green patch causally connected with the leaf .....'[1]

> 'Where the philosopher's child at the Zoo says "There is a hippopotamus over there", the philosopher should reply: "There is a coloured pattern of a certain shape, which may perhaps be connected with a system of external causes of the sort called a hippopotamus".'[2]

The leaf or the hippopotamus is a system of events at the region where the physicists place the thing. Our percepts of the thing belong to a wider system of events that emanate from the place of the thing; but they do not constitute the thing, they are causally connected with the other events of the system including a "central system" of events which is the thing, the "common causal ancestor"[3] of the whole complex system of events.

Russell adopts this modified theory in all his later works. In 'Human Knowledge'[4] he recognises that there are common objective 'things' or groups of events which are the common origin of the

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1. An Outline of Philosophy, p. 292.
2. Ibid., p. 291.
3. Human Knowledge, p. 483.
4. Ibid., pp. 480 ff.

percepts of various observers. One illustration is the case of several people and several motion picture cameras watching the same performance of a play. These observers describe similar percepts, and the camera-records are also found similar to each other and the percepts. In such a case, "When a group of complex events in more or less the same neighbourhood and ranged about a central event all have a common structure, ... they have a common causal ancestor ..... In the case of a physical object seen simultaneously by a number of people or photographed simultaneously by a number of cameras, the central original event is the state of that physical object at the time when the light rays which make it visible left it."[1] The "central original event" is a complex event and therefore a system or structure of minimal events; and this is the momentary thing.

Our percepts, then, are not constituents of any physical objects other than our brains. In 'Portraits from Memory' as also later on Russell maintains the same view. Thus, "What we see when we see chairs and tables and the sun and the moon and so on ..... are not either the whole or part of the physical objects that we think we are seeing."[2] Our percepts are constituents of our minds and brains; other physical things are composed of events which form the original causal ancestry of our percepts.

Thus the world as conceived by Russell in this modified theory of his later works is a complex system of events. The

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1. Human Knowledge, p. 483.
2. Portraits from Memory, p. 150.

events form themselves into different groups; they fall into various causal series or chains that are called "causal lines".[1] In 'Human Knowledge', a causal line is defined as "a temporal series of events so related that, given some of them, something can be inferred about the others whatever may be happening elsewhere".[2] A causal line may always be regarded as the persistence of something, a person, a table, a photon or what not.[3] There are two specially important kinds of chains of events, namely "those which constitute the history of a given piece of matter" and "those which connect an object with the perception of it".[4] The sun, for example, has its history or biography consisting of all that happen in the part of space-time that it occupies; "this biography may be said to be the sun".[5] The other causal chain consists of events radiating from the sun and terminating in our perception of the sun. Not only do we have causal lines from a centre to our own percepts, but also a number of similar causal lines proceeding from the same centre to different observers and other places. Thus various observers have similar perceptions of the same object which is independent of such perceptions. It is this notion which provides a public objective world of common reference.

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1. The Analysis of Matter, ch. XXX, pp. 313 ff; Human Knowledge, pp. 333-4, 476-7.
2. Human Knowledge, p. 477.
3. Ibid., p. 477.
4. Ibid., p. 341.
5. Ibid., p. 341.

The events out of which the physical world is constructed are, Russell points out, very different from matter as traditionally conceived. Matter is traditionally expected to be impenetrable and indestructible. But events are neither. Matter as constructed in this theory is impenetrable as merely a tautological result of the way in which it is defined.[1] The matter in a place is all the events that are there, and consequently no other event or piece of matter can be there. Indestructibility is an empirical property, and is believed to be approximately but not exactly possessed by matter; and there is no known reason why matter should be indestructible.[2]

The view of the world as thus finally produced by Russell more nearly accords with common-sense and science than his earlier view. It is a more believable world which provides the publicity and independence of the physical objects. The theory also offers a probable explanation of the nature of the relation between perception and physical objects. Russell does not dogmatically assert that it is the only possible view of the world that accords with science; he accepts the view he has produced on grounds of greater consistency, simplicity and believability. He thinks that there might be alternative views which would be equally probable, but he does not see what these alternatives could be.

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1. The Analysis of Matter, p. 385; An Outline of Philosophy, p. 291; Human Knowledge, p. 297.
2. The Analysis of Matter, pp. 386-7; An Outline of Philosophy, p. 290; Human Knowledge, pp. 327, 476-7.

Now, throughout his 'eventism' Russell maintains the causal theory of perception. In the latest version of the theory, physical objects are the remote causes of our perceptions; we do not perceive the events making these objects. What we perceive are our own percepts which are in our brains. The events that make things outside the brain are only known indirectly as inferences from our percepts. All that we know about them is their structural similarity to our percepts and not their intrinsic nature. Epistemologically, this constitutes a return to the position of 'The Problems of Philosophy' in which Russell had maintained a sort of representative theory which he subsequently abandoned. The difference is that in that early work physical objects were simple permanent things, but now they are complex structures of momentary events, -- permanence is not now a characteristic of the stuff of the world, it is "only approximate, not absolute";[1] there is only a sort of 'quasi-permanence'[2] belonging not to single events but to series of events correlated in certain ways.

The causal theory of perception, we have said, offers Russell a better ground for the inference to unperceived events than mere continuity. But this causal theory is itself an inference which needs justification. We have seen that Russell accepts it on more or less 'pragmatic' considerations. But these considerations

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1. An Outline of Philosophy, p. 290.
2. Human Knowledge, pp. 475-6, 506-7.

cannot be taken as sufficient for establishing the theory.[1] Moreover, Russell very often appeals to physical causal laws and utilises them in both his earlier and later constructions which are again supposed to justify our beliefs in physics. But if he is to avoid circularity and if the laws of physics are to serve as grounds for inferences involved in his constructions, he has to obtain them independently of the constructions. In his writings he has always assumed that in general laws of physics are true and that there must be some principles of scientific inference which would justify them. He has asserted that unperceived events that are inferred in accordance with the canons of scientific methods are 'verifiables'. But it is necessary to formulate and establish these canons. Russell realises this, and consequently employs himself in 'Human Knowledge' to the task of formulating the fundamental principles of scientific inference that he thinks will be sufficient to guarantee the truth of science and to justify those inferences which result in what he maintains is the picture of the world that science gives us. These principles are called the 'Postulates of Scientific Inference'.

Russell formulates five postulates[2], namely (I) the postulate of quasi-permanence, (II) the postulate of separable causal lines, (III) the postulate of spatio-temporal continuity

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1. A.J. Ayer objects to the causal theory of perception as he thinks that it is an hypothesis without any valid evidence and that it is an illegitimate extension of the concept of causality beyond the field of its significant application. Cf. The Foundations of Empirical Knowledge, pp. 220-1. For Russell's reply to similar criticism, see The Philosophy of Bertrand Russell, p. 702; see above, p. 189.

2. Human Knowledge, pp. 506 ff; My Philosophical Development, pp. 190 ff.

in causal lines, (IV) the structural postulate, and (V) the postulate of analogy. He feels that it may be possible to reduce their number by further investigations, and accordingly they all may not be necessary to validate scientific methods. But he believes that they are sufficient.[1]

The postulate of quasi-permanence states: "Given any event A, it happens very frequently that, at any neighbouring time, there is at some neighbouring place an event very similar to it."[2] The chief use of this postulate is to preserve, and to account for, the relative permanence of things and persons without assuming the common-sense notion of substance. This can be done if we do not suppose that any event is permanent in the strict sense of the word, but instead speak of quasi-permanence among events. We should not suppose that a thing, for example a table, is composed of some events which all persist throughout its history, but that the events composing it at one moment are not the same but very similar to those composing it at a shortly earlier or later moment. Thus the table is a series of events; it has no absolute permanence, but only quasi-permanence.

But similarity alone would not be enough to identify a thing. We should be able to distinguish two similar things. Russell therefore introduces the notion of separate independent 'causal lines'; and his second postulate relates to them. According to it, "It is frequently possible to form a series of events

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1. Human Knowledge, p. 513.
2. Ibid., p. 506.

such that, from one or two members of the series, something can be inferred as to all the other members."[1]

Causal lines or chains of events are continuous. Russell denies 'action at a distance'. Events will not influence each other if they are completely separate in space and time; when there is a causal connection between two events which are not continuous, there must be intermediate links in the causal chain such that each is contiguous to the next. The third postulate, namely the postulate of spatio-temporal continuity[2], is concerned to deny 'action at a distance'. This enables us to believe that physical objects exist when unperceived, and that between our recollections of an occurrence there is something in the brain which exists at the intervening times and makes causal lines continuous. A great many of our inferences to unperceived events, according to Russell, depend upon this postulate.

The fourth postulate, namely the structural postulate,[3] is concerned with our belief in common objective things or common origin of the percepts of various observers. We have seen that Russell accepts such common objects; and the structural postulate is supposed to validate their acceptance. The postulate of analogy, the fifth postulate,[4] relates to our inferences to events in other minds. We do not perceive the percepts and images of other people,

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1. Human Knowledge, p. 508.
2. Ibid., pp. 509-10.
3. Ibid., pp. 510-1.
4. Ibid., pp. 511-3.

but infer them on analogical grounds. The postulate of analogy formulates the principle of this inference, and is supposed to justify this inference.

These postulates collectively are intended to provide "the antecedent probabilities required to justify inductions",[1] and thus to justify inferences to unperceived events. But there is now the question of the justification of the postulates themselves. According to Russell, they cannot be deduced from experience, nor can they be definitely proved by us.[2] Their justification is their great usefulness in validating the inferences from perception to the laws of science; their justification is that they enable us to form a view of the world which is confirmed, and never contradicted, by our experience. The postulates are universal propositions of a sort that experience alone cannot prove. But we most certainly need some universal propositions to validate science. "Either, therefore, we know something independently of experience or science is moonshine."[3] Russell says further:

> 'It is nonsense to pretend that science can be valid practically but not theoretically, for it is only valid practically if what it predicts happens, and if our canons (or some substitutes) are not valid, there is no reason to believe in scientific predictions.'[4]

Thus the postulates are not based on experience, but all their verifiable consequences are confirmed by experience.[5]

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1. Human Knowledge, p. 506.
2. Ibid., p. 527.
3. Ibid., p. 524.
4. Ibid., p. 524.
5. Ibid., p. 527.

So, finally Russell admits that empiricism has its limits,[1] that if we are to avoid 'solipcism of the moment' we have to accept some such principles as the postulates or their substitutes in order to arrive at a view of the world which is confirmed by experience.

Before leaving this chapter, we would like to refer back to Russell's postulate of quasi-permanence which seems to admit of alternative interpretations. A thing or a person at one moment is composed of a group of events. The next moment the group is replaced by another group of similar events, and so on at all subsequent moments. Thus the history of the thing consists of the series of groups of events.

This seems to suggest that the events of a momentary group making the momentary state of the thing change or are replaced "all at once" by a set of new but similar events. This would perhaps accord with Russell's statement in 'The Analysis of Mind' that a (permanent) thing is a series of momentary things.[2] This may also be supposed to be implied in his explanation of continuity as given in 'The Analysis of Matter'[3]: He says there that events can be arranged about centres; that given such a group at one time it is generally found that there are similar events arranged about neighbouring centres at slightly earlier or later times;[4] and that by taking the centre very small and by continually diminishing the time-like interval concerned, we get continuity in the limit when

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1. Human Knowledge, pp. 516 ff.
2. The Analysis of Mind, p. 125.
3. Op. cit., p. 322.
4. This is, in fact, what is later on asserted by the postulate we are considering.

the interval tends towards zero.

According to this interpretation a thing (i.e. a momentary thing) comes into existence at one moment and then completely goes out of existence at the next moment when another group of similar events, that is another momentary thing, comes into existence. The two groups are numerically different having no numerically common identical element between them. We identify them as the same thing or as the states of the same thing because of the similarity of the groups. This may be called a 'cinematographic' view of the world. But this is not the sort of continuity that is usually supposed to characterise things and persons. Similarity alone cannot account for their relative permanence; this would not enable us to distinguish between two similar things that may occupy the same place at two successive moments. Russell realises this, and therefore introduces the concept of independent causal lines with the postulate concerning them. This postulate asserts 'self-determined' causal processes or chains of events. Of the two kinds of causal chains,[1] the one which relates to quasi-permanence of things and persons, does not seem to counteract the cinematographic view that between two successive momentary states of a thing or person there is nothing common except the similarity of the component events. Thus interpreted, Russell's theory of quasi-permanence would, among other things, fail entirely to account for our feeling of moment to moment continuity of our personal life.

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1. See above, p. 200.

But we need not suppose that this interpretation is necessary or that such a view of quasi-permanence is correct. It is possible to produce another interpretation of the concept of quasi-permanence of things and persons, which would equally avoid the notion of a permanent substance and yet would not make the states of a thing or person at two successive moments entirely different as being composed of numerically different events. This account of quasi-permanence may be stated as follows.

Every event is momentary (i.e. of very brief duration) and is replaced by a new but similar event. But this need not be a necessary feature of that complex group of events (as a whole) which makes the momentary state of a thing or person. For it is possible that, while each event is replaced by a new event, the group as a whole is not completely replaced by a group of all new events. The events of a given group may not change 'all at once', but differently such that any particular event belongs to two contiguous moments in the history of the thing. The thing at any two successive moments is not entirely different; the group of events at any particular moment is partially new in so far as some earlier events have now been replaced by new events (say, A B C ...); but it is also partially 'old' in the sense that some events (say, X Y Z ...) which came into existence slightly before the new events (A B C ...) have not yet been replaced but are about to be replaced. When these 'old' events (X Y Z ...) are then replaced, the former new ones (A B C ...) will not have yet been replaced but will be about to be replaced. Thus successive moments in the

history of the thing may be roughly represented as the following, in which any two bracketed lines represent two contiguous moments or states of the thing:

(I)

$X\ Y\ Z\ A\ B\ C$

$X_1\ Y_1\ Z_1\ A\ B\ C$

$X_1\ Y_1\ Z_1\ A_1\ B_1\ C_1$

$X_2\ Y_2\ Z_2\ A_1\ B_1\ C_1$

$X_2\ Y_2\ Z_2\ A_2\ B_2\ C_2$

and so on.

Or, (II)

$A\ B\ C$

$X\ Y\ Z$

$A_1\ B_1\ C_1$

$X_1\ Y_1\ Z_1$

$A_2\ B_2\ C_2$

$X_2\ Y_2\ Z_2$

$A_3\ B_3\ C_3$

and so on.

We need not sort out the events of the groups into two varieties only as shown in these lines; the varieties of the slight difference in the time of change of events may in fact be many. The main point is that the events composing a thing are all changing but in slightly different times, such that it would not be possible to isolate two contiguous states of a thing into two completely discrete groups.

This conception of a series of groups or structures of events retains all the important features of Russell's account of things and persons including their quasi-permanence, and yet does not require a cinematographic view of the world. This accords with, or rather follows from, Russell's statements that "every event is contemporaneous with events that are not contemporaneous with each other",[1] that an event may overlap in time or be compresent with

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1. An Outline of Philosophy, p. 288;
The Analysis of Matter, p. 292.

events which do not overlap in time with each other,[1] and that an event is a member of many point-instants.[2] Thus an event which is a constituent of a thing belongs to more than one instant in the history of the thing; and this may be true of all events composing a thing or person. Accordingly, between any two successive moments in the biography of a thing or person there will be events that are actually identical, and events that are only similar. This account of quasi-permanence of things and persons does not involve complete separation of their momentary states which are thus shown to be overlapping. This view will, I hope, be seen to offer an explanation of our feeling of moment to moment continuity of our personal life.[3]

This view of quasi-permanence is not explicitly stated by Russell; his formulation of the postulate concerned does not by itself seem to result in this explanation. But it follows from his conception of overlapping events in time and overlapping points and instants (or point-instants) taken in conjunction with the postulate. This analysis of quasi-permanence does not involve any new ideas; but it follows from putting together several of Russell's ideas. It avoids the difficulties of the alternative interpretation stated above. I, therefore, suggest that this is a more appropriate explanation of quasi-permanence of things and persons. It is difficult to say if Russell intends it this way.

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1. The Analysis of Matter, p. 315; An Outline of Philosophy, p.288; Human Knowledge, p. 348.
2. An Outline of Philosophy, p. 289; The Analysis of Matter, pp. 299, 302.
3. See below, pp.

I think he does; but if not, I should offer this as a modification of his concept of quasi-permanence.

CHAPTER V

THE THEORY OF MIND

1. Rejection of the Dualistic Criteria of Mind

The theory of mind as produced in Russell's neutral monism, may be said to have a negative and a positive side. Negatively, it consists of an analysis and rejection of the Cartesian and non-Cartesian dualistic criteria of the distinction between mind and matter; positively, it consists of an explanation of mind and mental phenomena in terms of sensations and images, the neutral atomic constituents of mind. We shall consider the negative side of the theory in the present section and the positive side in the subsequent sections of this chapter.

Mind, according to Russell, is not a simple substance. Following William James, he rejects the notion of 'consciousness' as a specific entity containing or expressing itself as the 'act' or 'subject' of consciousness. There are sensations (or percepts) and images, but not a 'consciousness' which is conscious of, among other things, sensations and images. Nor is consciousness an essential characteristic of all mental phenomena. There is much in our mental life, that is to be taken as unconscious. There are such things as unconscious desires, motives, conflicts, etc. This is confirmed by comparative psychology, psycho-

analysis and behaviourism. Consciousness in the sense of 'awareness' belongs to groups of sensations and images by virtue of their various correlations among themselves and with the organism.

In recent philosophical literature there are many instructive discussions about various dualistic criteria of the distinction of mind and matter. Herbert Feigl in his 'The Mental and the Physical'[1] has produced a list of alternative ways of distinguishing the mental and the physical, and has argued against them. Besides the notion of 'consciousness' as a substance, he considers eight Cartesian and non-Cartesian dualistic criteria of the mental. These identify the mental with the intentional, the subjective (private), the non-spatial, the mnemic, the purposive, the qualitative, the holistic and the emergent.[2] A. Quinton refers to this list and offers his arguments against these criteria.[3] The arguments of these philosophers are indeed very useful in rejecting dualism and go a long way in favour of monistic philosophy. Now, Russell has been arguing against psycho-physical dualism since a long time before these philosophers; and it is curious to notice that the criteria they mention have all figured in some form or other in Russell's discussions. In this sense, the arguments of these philosophers may be viewed as in many respects extensions and elaborations of Russell's views. As the case

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1. Op. cit., in Minnesota Studies in the Philosophy of Science, vol. II, pp. 370 ff.
2. Ibid., pp. 396 ff.
3. A. Quinton, op. cit., pp. 204 ff.

against the dualistic criteria of the mental has been elaborately argued out by these philosophers (and many others to whom they refer), it seems hardly necessary for us to reproduce Russell's arguments in detail. We shall therefore state his views here in bare outline and only to the extent that seems necessary for an understanding of his position.

A. Intentionality. It is a criterion which was much stressed by Brentano and his followers. According to this point of view, the most fundamental difference between the mental and the physical is that the mental life consists of 'acts' directed upon objects.[1] We have seen that Russell's rejection of this principle consists in rejecting the act-content-object scheme. The 'act' (or subject) is not empirically discoverable and is logically unnecessary. The relation of 'content' and 'object', again, "is not ..... the simple direct essential thing that Brentano and Meinong represent it as being".[2] In sensation there is no such distinction; and in cases where it seems to be present, as in memory, it is a derivative relation involving belief which is again a complex phenomenon. In pure imagination there is only 'content' without 'object'.[3] Thus, the reference of an 'act' to some object cannot be regarded as the essence of mental phenomena.

B. Subjectivity or Privacy. We have already considered the notions of 'subjectivity' and 'objectivity' as conceived by

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1. The Analysis of Mind, pp. 14 ff; H. Feigl, op. cit., p. 417.
2. The Analysis of Mind, p. 18.
3. Ibid., p. 19.

Russell, particularly in connection with sensations or percepts.[1] Subjectivity, according to him, is not a peculiar characteristic of the mental alone. It is present in every perspective perceived or unperceived. Thus it is there in a photographic plate as it is there in a mind. An event is in the private space of the perspective of which it is a member. It may be similar to other events in other perspectives, but it is also somewhat different from those others. Thus subjectivity or privacy belongs to every event, no matter whether it is a member of a mental or a physical group. In this sense there is no fundamental difference between the case of two men seeing the same table and "the case of two thermometers immersed next to each other in the same glass of water."[2] The sensation of each of the men is subjective or private, but so also what happens in each of the thermometers. Yet it makes good sense to say that the two persons see the 'same' table and that the two thermometers indicate and have the same temperature. Thus subjectivity and objectivity inhere in each event.

Objectivity or publicity consists in the similarity, or rather semi-similarity, of events, which makes it possible to correlate them and thus infer them from one another. It is the degree of the correctness of the inference that determines the degree of the objectivity or publicity of the event.[3] As Russell says, "there are different degrees of publicity attaching to

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1. See above, Chapter III, Section 7.
2. H. Feigl, op. cit., p. 398.
3. The Analysis of Mind, pp. 118-9; The Analysis of Matter, pp. 222 ff; An Outline of Philosophy, pp. 160 ff; See above, pp. 122-3.

different sorts of sensations".[1] Sight and hearing are the most public of the senses, and the bodily sensations are the most private sensations; while touch, smell, taste are intermediate between them in increasingly lower degree of publicity in this particular order. "As regards privacy, all images, of whatever sort, belong with the sensations which only give knowledge of our own bodies ..... even the most private sensation has correlations which would theoretically enable another observer to infer it".[2] Thus the dentist does not feel my toothache, but he can infer it from seeing the cavity that causes it. As, in ultimate analysis, all our experiences consist of sensations and images, they can be inferred by other observers. It is this fact which, according to Russell, constitutes the objectivity or publicity of our experiences; and Feigl's conception of 'objective' or 'public' in the sense of "in-principle-intersubjectively-confirmable"[3] is simply the Russellian principle as indicated above.

In this connection it is perhaps worth mentioning that there is a fundamental difference between Russell and the behaviourists as regards the question of 'introspection'. The behaviourists over-emphasise the publicity of experiences and thus "extrudes from science observations which are private to one observer".[4] But for Russell, privacy and publicity are not mutually incompatible, and

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1. The Analysis of Mind, p. 118.
2. Ibid., pp. 118-9.
3. H. Feigl, op. cit., p. 399.
4. The Analysis of Mind, p. 119.

therefore privacy "does not by itself make a datum unamenable to scientific treatment. On this point, the argument against introspection must be rejected."[1]

In favour of introspection or self-observation, Russell has produced elaborate arguments as against the behaviourists, particularly J.B. Watson.[2] We need not go into the details of these arguments. It will perhaps suffice to point out that for Russell introspection is a genuine source of knowledge. He argues that in one sense all our knowledge is based on introspection. The facts of physics like those of psychology are obtained by what is really self-observation. All our percepts are in our heads; and in knowing them, we are knowing what is in us; their external causes are only inferred from them, and the inferences are sometimes mistaken.[3] Russell, however, recognises that there is a difference in the degree of correlation of our knowledge with events outside our body. In some cases these correlations can be easily established and are often testified by other observers; in others they are difficult. In the latter cases, other observers can only have very indirect knowledge. Another man can see the hole in my tooth and can infer that I feel toothache, but "he still does not have the very same knowledge that I have".[4] A man knows a great deal about himself which another man can know only indirectly. "This peculiar

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1. The Analysis of Mind, p. 119.
2. Ibid., pp. 108 ff; An Outline of Philosophy, Ch. XVI.
3. An Outline of Philosophy, p. 180.
4. Ibid., p. 182.

knowledge is, in one sense, 'introspective' ....".[1] Moreover, thinking, imagination, hallucination and dreams are facts about our life. In these cases, though there may be an external stimulus, there is not anything in the outside world correlated with them in the same way as in normal perception. Yet in all these cases, we clearly know what is happening in us. In this sense, self-observation or introspection "can and does give us knowledge which is no part of physics."[2] Introspection therefore makes important contributions to the study of psychology, and there is a distinction between psychology and physics such that the former cannot be reduced to the latter.

Russell accepts introspection as a source of knowledge; but it is not infallible, it is often misleading "unless it is constantly checked and controlled by the test of external observation".[3] It gives us direct knowledge[4] about what is private to ourselves and can only be known by others through inference and testimony. But privacy and publicity are not mutually incompatible and cannot, therefore, be the basis of the dualistic distinction of mind and matter. In this sense, this criterion was rejected by the new realists especially by R.B. Perry[5]; it is rejected by Russell as also by the modern identity theorists.

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1. An Outline of Philosophy, p. 182.
2. Ibid., p. 183.
3. The Analysis of Mind, p. 48.
4. There is an argument in Stace's article (op. cit., pp. 380-1) which seems to suggest that Russell does not accept introspection. But what we have said above is enough to show that the suggestion is unacceptable.
5. R.B. Perry, op. cit., pp. 286 ff.

One thing should, however, be mentioned here. Although we cannot divide the world into two separate compartments as the private and the public and thereby erect an absolute barrier between mind and matter, there is nevertheless an important distinction. What is private to oneself is known by oneself directly. When one feels a pain, others may have an indirect inferential knowledge of it, but they do not have the same knowledge as one has. But what is not private to anyone, i.e. the outside events, are known by one in the same manner as by others. This is a distinction which Russell finally recognises to be the ordinary source of our making the distinction between the mental and the physical. As this point needs further considerations, we may leave it for a later occasion.[1]

C. Non-spatial versus Spatial. The Cartesian distinction of mind and matter as non-spatial and spatial has persisted throughout centuries. Russell has opposed it and argued that all events whether they are members of the mental or the physical group occupy space and time, rather space-time, and that all our experiences (sensations and images) are located in our body, more particularly in our brain. This argument, we have seen, is connected with the distinction of perceptual (psychological) space and physical space and their relation to each other. Russell derives an argument from the relativity of space and time.[2] He says that it is usual to hold that 'mental' events are in time but not in space. But

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1. See below, pp.273ff.
2. The Analysis of Matter, pp. 383-5.

according to the modern scientific theory of relativity, space and time are not as distinct and disparate as they were thought to be. Consequently, "it has become difficult to hold that mental events, though in time, are not in space."[1]

The important point in this connection is the relation of the psychological space and the physical space. The mere recognition of the two kinds of space would not amount to a rejection of dualism. For one may accept the spatiality of mental events and at the same time maintain that mental events are in psychological space and physical events are in physical space. This would be psycho-physical dualism, though not in Cartesian sense. Such a view, however, would have a difficulty similar to one of Cartesian dualism. One difficulty of Cartesian dualism is that it cannot explain the fact of interaction of mind and matter; it is difficult to conceive how something not in space can affect, and be affected by, something else which is in space. Spatiality of mental events is supposed to overcome this difficulty. But if the mental and the physical events are supposed to be in entirely two different 'spaces' having no relation between them, the old difficulty returns. The question is as to how a mental event which is in the 'mental' space can affect, and be affected by, a physical event which is in the physical space. The problem can only be solved if the two 'spaces' can be shown to be so related as to make 'interaction' possible. Russell's construction of physical space out of

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1. The Analysis of Matter, p. 384.

perceptual spaces (i.e. the private spaces of perspectives) offers a solution of the difficulty and makes it possible to maintain that all events including our experiences (percepts and images) are not only in private or perceptual spaces but also in the one physical space.

D. The 'Mnemic'. As regards the question of the 'mnemic' as a criterion of the mental, I should better begin by quoting Feigl, for it seems to me that he definitely misunderstands Russell. He says:

> 'The mnemic as a criterion of mind was stressed especially by Bertrand Russell. But long before him, the physiologist Ewald Hering (and his disciple Semon) considered the mnemic as a general property of all organic matter. Even in inorganic matter there are more or less permanent modifications of dispositional properties which can be effected by various influences.'[1]

From the last sentence in this passage it would appear as if Feigl is stating something new which was not noticed by anybody before him. This is not true; nor is it true that Russell accepts the 'mnemic' as an absolute criterion which distinguishes the mental from the physical or even some forms of organic matter from some others. We have already seen[2] how Russell's views have undergone changes in respect of 'mnemic' causation. But in one respect his position has remained constant. Though he accepts the 'mnemic' as a characteristic which "broadly" distinguishes the behaviour of living organism from dead matter, he never takes it as an "absolute" criterion of mind alone or of organism alone.

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1. H. Feigl, op. cit., p. 413.
2. See above, pp. 129-31.

Thus in 'The Analysis of Mind'[1] wherein he emphasises this characteristic most, he says:

> 'The characteristic is not wholly confined to living organisms. For example, magnetized steel[2] looks just like steel which has not been magnetized, but its behaviour is in some ways different.'

He expresses the same view in his later works with much emphasis, and says that the 'mnemic' cannot be taken as a ground for erecting an "absolute barrier between mind and matter",[3] because it is present in all living bodies as also in some forms of inanimate matter. Thus Feigl is wrong in suggesting that Russell accepts the 'mnemic' as an absolute criterion of the mental alone and fails to recognise its presence in all organic matter and also in some forms of inorganic matter. But while this is said, we should also notice that Russell emphasises the prominent degree in which the characteristic is present in living organisms as against the rudimentary form in which it is present in dead matter. In this sense the distinction of mind and matter is a difference of degree,[4] and the difference is enormous but not absolute. Consequently, Russell makes use of 'mnemic' phenomena in his explanation of mental phenomena, such as habit, learning, memory, etc. As the latter, according to Russell, are mainly 'mnemic' developments and as the 'mnemic' characteristic is prominently present in all living organisms, in various degrees, he gives a view of mind in which the

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1. Op. cit., p. 78.
2. This example appears in Feigl's work (op. cit. p.413); but the author seems unaware that Russell had already used it for the same purpose.
3. An Outline of Philosophy, p.306. 4. Ibid., p.209.

human mental life is conceived as being continuous with the animal life[1] and in which mind is "a matter of degree chiefly exemplified in number and complexity of habits".[2] Thus "an oyster is less mental than a man, but not wholly unmental".[3]

E. Purposiveness and Mechanism. Purposiveness is a characteristic which is very much emphasised in the common-sense conception of mentality. In a general sense, it is characterised by actions directed towards the attainment of ends. But in a special sense, it includes only those cases which involve conscious ends with conscious ultilisation of means to such ends. Now, it is clear that in the general sense of 'purposiveness' or 'teleology', it is exhibited in all forms of organic life including plants; and accordingly it is difficult to draw any line to indicate where mentality begins within that realm. But taken in the sense of conscious aims, it is found only in the behaviour of higher animals, particularly human beings.

As Feigl points out, purposiveness taken in the wider sense of teleology does not help in the definition of the mental versus physical distinction; teleology in this sense is present even in the movements of some physical machines, and "the phrase 'teleological mechanism' in our age of cybernetics is no longer a contradiction in terms".[4] What needs consideration is, then, the special sense of purposiveness; and Russell's views in this respect are briefly as follows.

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1. The Analysis of Mind, pp. 40, 41 ff.
2. Ibid., p.308; An Outline of Philosophy, pp. 209, 222, 297.
3. Ibid., p. 209.
4. H. Feigl, op. cit., p.413.

Russell does not seem to accept purposiveness or teleology in the sense of a 'pull' or 'attraction' towards a goal or object. Conscious aims or desires are a fact particularly of human life; but according to Russell it is a very complex phenomenon which is rather a late development in the life of the individual. Desire as a characteristic of behaviour begins very low in the scale of evolution;[1] it remains in most cases 'blind' or unconscious. Even in human life all desires are initially blind tendencies to certain kinds of activity; it is only experience, memory and association which confer consciousness or knowledge of the object to some of them.[2]

According to Russell, the primitive condition out of which explicit conscious desire is evolved is non-cognitive; it is "a push, not a pull, an impulse away from the actual, rather than an attraction towards the ideal".[3] Certain sensations and other mental occurrences have a property which may be called discomfort; these cause bodily movements ultimately leading to their cessation. When the discomfort ceases, we have sensations which are pleasant. Thus a hungry animal feels discomfort, makes various movements until it finds the food and eats it; his discomfort is over and his sensations are now pleasurable. It is a mistake, says Russell, to suppose that the animal has had the situation in mind throughout, when in fact it has been continually pushed by discomfort[4] which is initially aimless restlessness. In human life, as

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1. An Outline of Philosophy, p. 229. 2. Ibid., p. 231.
3. The Analysis of Mind, p. 68; An Outline of Philosophy, p. 230.
4. The Analysis of Mind, p. 68.

in animals, desires are initially blind. It is only repeated experience which leads to the consciousness of the object and of means towards its realisation. But even when we reach the level of conscious explicit desires, though we seem to be attracted to a goal we are in fact pushed from behind.[1] Russell says:

> 'The attraction to the goal is a short-hand way of describing the effects of learning together with the fact that our efforts will continue till the goal is achieved, provided the time required is not too long. There are feelings of various kinds connected with desires, and in the case of familiar desires, such as hunger, these feelings become associated with what we know will cause the desire to cease. But I see no reason in the case of desire than in the case of knowledge to admit an essentially relational occurrence such as many suppose desire to be.'[2]

Russell thus rejects the concept of desire as essentially relational occurrence, and the concept of purposiveness as basic characteristic of mind.

F. Mind as the Qualitative, the Holistic, and the Emergent.

Of these, the first two criteria may be quickly disposed of, while the third needs some consideration. The contrast of the mental and the physical in terms of the qualitative and the quantitative is described by Feigl as a "Time-honoured distinction".[3] Broadly speaking it consists in the idea that mental phenomena, unlike the physical, admit only of qualitative, but not quantitative, distinction or description. Now, that Russell does not accept this idea is clear. We have said that he conceives mind as a matter

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1. An Outline of Philosophy, p. 230.
2. Ibid., pp. 230-1.
3. H. Feigl, op. cit., p. 409.

of degree. And as this is basic in his theory of mind, the criterion in question is simply unacceptable from his point of view.

The holistic as the criterion of mind is opposed to atomism. It is suggested that while matter is atomic, mind is not. Now, it can hardly be exaggerated that Russell's theory of mind is a complete antithesis of this dualistic suggestion.

The notion of 'emergence' means that the laws and properties of complexes cannot be inferred from those of their constituents. Now, it is a familiar fact of history that the advocates of the concept of 'emergence' have not restricted it to mind, but have applied it to physical complexes as well.

Russell has at times disfavoured the idea of 'emergence'. In 'The Analysis of Matter' he says that emergent properties represent merely scientific incompleteness. He however admits that it is difficult to advance any conclusive argument on either side as to the ultimate nature of 'apparently emergent properties'.[1] In 'An Outline of Philosophy'[2] he considers at some length the notion of 'emergence' particularly as applied to mind. The question with which he is specifically concerned, is not that of 'emergence' as a dualistic criterion of mind; it is rather the question as to whether mind is an emergent from a material structure. C.D. Broad in 'The Mind and its Place in Nature' holds the view that mind is a material structure but that it has properties which cannot, even theoretically, be inferred from those of its material constituents. It is

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1. The Analysis of Matter, p. 286 foot-note.
2. Op. cit., pp. 293 ff.

this particular view of mind which Russell considers. The arguments he offers do not only repudiate Broad's 'emergent materialism' but also the alleged dualistic idea that mind alone is emergent. He, in fact, accepts both mind and matter as emergent from events, the ultimate stuff of the world; but for him, neither is emergent from the other. As this discussion is important and involves a definition of mind, its consideration should better be postponed for a later occasion.

2. Analysis of Mental Phenomena

Russell's theory of mind, on its positive side, consists in explaining mind in terms of sensations and images. His objective is to give an account of all mental phenomena such as memory, imagination, belief, emotion, desire, will etc., without introducing anywhere 'consciousness' as an entity, act or subject.

In respect of some points connected with the theory of mind, Russell's views have undergone fundamental change at the two stages of his neutralism. One of these concerns the neutrality of images: while in 'The Analysis of Mind' they are not neutral, in the later works they are. A second point relates to 'mnemic' causation. Russell first accepts it as involving action at a distance in time, but later on explains it in terms of permanent modifications of the structure of the brain due to past experience. A third point is the view that all our sensations and images are

among the stuff of our brain; this is held at the later stage, but not at the earlier stage. We have already considered these. There are also other points of difference such as the acceptance of the notion of 'emergence' in respect of both mind and matter, the introduction of the concept of 'noticing', etc. But these changes have not affected the basic idea that mental phenomena are complexes of sensations and images. The explanations of these phenomena as given in 'The Analysis of Mind', and in 'An Outline of Philosophy' are substantially the same. We shall therefore consider them generally without always distinguishing the stages, but always indicating the important developments that have been made at times.

Russell's explanation of various mental phenomena are very well known; we need not therefore reproduce them in great detail. There are, I think, two problems of fundamental importance which are connected with his neutralistic theory of mind. The first is concerned with showing that in each case a mental phenomenon is a complex of sensations and images, and does not involve a special entity called 'consciousness'. The second problem is to explain how certain combinations of sensations and images come to possess consciousness in the sense of 'awareness' -- the only sense in which Russell accepts it. The two problems are, in fact, interconnected and cannot perhaps be satisfactorily explained one without the other; nevertheless they can be distinguished. The second problem arises from the nature of the ultimate constituents of mind. A single sensation or image, according to Russell, is not in itself cognitive. Now, in explaining a mental occurrence which

is conscious, it would be necessary, besides analysing it into its non-cognitive constituents, to show what constitutes consciousness or awareness in it. We shall therefore consider Russell's explanation of mental phenomena specially with reference to these two problems.

It has been said above that, according to Russell, there is mental continuity throughout organic evolution. The progress in experiemental studies of animal behaviour has thrown such light on the nature of the human mental life. Accordingly, Russell thinks that a part of the problem of mind can be dealt with by behaviourist methods. One of the differences between dead matter and living organism is that the response of the organism to a stimulus changes with frequent repetition of the stimulus, but the response of dead matter in general shows no such change. Thus, 'a burnt child dreads the fire', but a slot machine never learns to respond to the mere sight of the coin. Habit, which is one of the most fundamental characteristics of living organisms, particularly of higher forms of life, consists according to Russell essentially in what is known as 'conditioned reflex'. Conditioned reflex is in essence this. An animal responds in a certain way to a particular stimulus. Now, if this stimulus is frequently presented to it along with another stimulus, it tends in time to behave in presence of the second stimulus as it previously did in presence of the first. Thus the animal comes to use the second as a 'sign' for the first and behaves appropriately. Russell says that much the same thing happens to school-children trying to learn a multiplication

table. Repeated attempts for a long period enable them to choose the right numbers. Thus repetition of behaviour in response to stimulus leads to the formation of habits which result in learning. The rat in the maze finds its way out after several attempts; and after repetition of this for a while it ceases to make any wrong turnings. It thus comes to 'learn' or 'know' its path in the maze. "It is by essentially similar processes that we learn speaking, writing, mathematics, or the government of an empire."[1]

All these can, Russell points out, be studied objectively by investigating bodily responses to bodily stimuli without postulating that the organism 'thinks' or has a 'consciousness'. Response to stimulus, also called 'sensitivity', is not a characteristic of living organisms alone; galvanometers, thermometers and computers respond to appropriate stimuli. Russell says that what distinguishes animals is called 'learning' which consists in changing the response as a result of the acquisition of habits. In this respect, there is a difference between different kinds of animals; and "a large part of the superiority of human beings to other animals consists in their greater capacity for acquiring numerous and complex habits."[2]

Now, although this principle is useful in explaining a considerable part of mental phenomena studied objectively by the behaviourist methods, this would not be sufficient to explain everything that is mental. We have seen that Russell accepts

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1. The Analysis of Mind, p.52; An Outline of Philosophy, pp.36 ff; My Philosophical Development, pp. 137-8.

2. Ibid., p. 138.

introspection or self-observation which gives us direct knowledge of our mental life which can only be indirectly known by other observers. Russell therefore recognises the importance of both the ways of studying mental phenomena.

A. Perception. As regards the analysis of cognitive phenomena, perception and memory demand consideration before anything else. We have already considered Russell's views on many questions connected with perception: When we say "we see a table", what happens in us is only indirectly related to 'the table' which is either a construction or an inference. What in fact we perceive, is a 'coloured pattern' which is a percept belonging to the perspective at the place where our brain is. It is not essential for the occurrence of the percept or sensation that there must be some external event or object as its cause, but in most cases there is such a cause. The sensation itself is not cognition or knowledge, but it gives rise to knowledge through its psychological effects, partly by being itself a 'sign' of things that are correlated with it, as for example sensations of sight and touch are correlated, and partly by causing images and memories after the sensation is faded.[1] Thus perception is a complex phenomenon. When e.g., we say "we see a table", there is a coloured pattern which is a sensation or percept in our brain. The sensation causes the image or rather after-image of which the sensation is the "prototype". It also gives rise to images of sensations that are correlated

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1. The Analysis of Mind, p. 142.

with it due to past experience. Thus besides the sensation (i.e., the visual coloured pattern), "there are tactual expectations or images: there is probably belief in an external object; and afterwards there may be memory or other mnemic effects".[1] All these may be taken as representing what naive realism takes to be the "subject-side" of perception, and the 'coloured pattern' as the "object-side" of it.[2]

The totality of all these constitutes perception, and in it we can distinguish the 'sensational' part and the part which is due to past experience. The two sides are on a level as regards being mental; and the relation between them is not such that the existence of the one logically demands the existence of the other: the relation is causal, being dependent upon experience and the law of association. The part which is due to past experience consists of images. Thus, perception is composed of sensation and images only.

But sensations and images are each in itself non-cognitive. So, the question is as to what constitutes 'consciousness', 'awareness' or 'apprehension' in a combination of sensations and images, which is perception. On this point C.D. Broad,[3] and following him C.E.M. Joad,[4] take Russell's theory to come to this: All the sensations of which it would be true to say that they are apprehended, belong to a certain sense-field or perspective; and of all sensations which belong to this sense-field it would be

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1. An Outline of Philosophy, p. 221. 2. Ibid., p. 221.
3. The Mind and its Place in Nature, pp. 210 ff.
4. Op. cit., pp. 98, 110-1.

true to say that they are apprehended. Hence, the properties of 'being apprehended' and of 'belonging to a certain sense-field or perspective' are logically equivalent. In fact we have not two different properties but a single property with two different names. "In other words, the relation which the sense-datum has to something else when it is apprehended is precisely the same as its relation to the visual sense-field or perspective to which it belongs. In this event the 'something else' must not be a mind but a 'perspective or visual sense-field', to which the mind is from this point of view apparently equivalent."[1]

As against this Broad offers a criticism which, according to Joad, is a conclusive refutation of Russell's theory. The argument may be briefly put as follows. A sensation which is a part of a visual perspective which is not experienced cannot itself be experienced. Therefore to be apprehended and to belong to a visual perspective could be equivalent only if it is logically impossible for there to be a visual perspective which is not experienced. Now, as a visual datum can exist without being apprehended, there is no logical reason why a visual perspective should not exist which is not experienced. It follows therefore that 'to be apprehended' and 'to belong to a visual perspective' cannot mean the same thing.[2]

Broad offers the above interpretation and criticism as regards Russell's position in 'The Analysis of Mind'; and Joad applies them to the views expressed in 'An Outline of Philosophy'

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1. C.E.M. Joad, op. cit., p. 98.
2. Ibid., pp. 110-1; C.D. Broad, op. cit., p. 211.

as well. Now, the above interpretation, taken as that of the theory of either or both of the books seems to be at best a partial representation. It is true that according to Russell a percept belongs to the perspective which is at the place where our brain is. But this perspective is not just a 'visual' perspective; it consists of all the sensations, visual, tactual, auditory, etc., that we have at one moment. Even this complex perspective is not in itself "equivalent to mind". This perspective together with the 'mnemic' phenomena that are connected with it constitutes mind. In the particular case of perception, the 'mnemic' phenomena include the image which the sensation causes directly and other images which it gives rise to becuase of correlations due to past experience. The sensation becomes apprehended by virtue of not only its being in the perspective of which the "visual sense-field" is an aspect, but also the 'mnemic' phenomena to which the sensation gives rise. In fact, the 'mnemic' elements play a vital role in Russell's explanation of 'consciousness' or apprehension.

In 'The Analysis of Mind'[1] Russell gives an explanation of consciousness or awareness. He says that consciousness must be of something and should therefore be defined in terms of that relation of images or words to an object which he calls 'meaning'. When an image or a word is a 'sign' of something else, this 'something else' is the meaning of the image or the word[2]. Now, when a sensation is followed by an image which is a 'copy' of it, "the existence of the image constitutes consciousness of the sensation,

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1. Op. cit., pp. 288 ff.
2. Ibid., p. 209.

provided it is accompanied by that sort of belief which, when we reflect upon it, makes us feel that the image is a 'sign' of something other than itself".[1] The image itself does not constitute consciousness; it does so only when it is accompanied by a belief of the sort that constitutes "objective reference, past or present".[2] In memory it is the belief in the existence of the past object; in perception it is the belief in the qualities correlated with present sensations. "An image, together with a belief of this sort concerning it, constitutes, according to our definition, consciousness of the prototype of the image."[3]

When we pass from the consciousness of sensation to that of the object of perception, an addition has to be made to the above definition. Perception consists of the sensation, together with associated images and a belief in the existence of the object to which the sensation and images are referred. The belief may be of the nature of the expectation of sensations correlated with the present sensation.[4] In perception, there is then the consciousness of the present sensation together with the consciousness of correlated but absent sensations. But as all the sensations and images are referred to the perceived object, the present sensation becomes a 'sign' of the object of perception much the same way as a memory-image is a sign of a remembered object.

But the consciousness of an image, as in 'thought', is to be explained differently from the consciousness of a sensation. The latter is constituted by the image which is a copy of the

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1. The Analysis of Mind, p. 289.
2. Ibid., p.289. 3. Ibid., p.289. 4. Ibid., pp.289-90.

sensation. But there is no image or copy of an image. So Russell says that the consciousness or knowledge of an image is not constituted by a copy of it, but by another image of the same prototype, together with the appropriate belief. "There may be two images of the same prototype, such that one of them means the other, instead of meaning the prototype."[1] In such a case, we think of an image A when we have a similar image B associated with recollections of circumstances connected with A but not with its prototype.

It follows that consciousness or cognition is a kind of 'mnemic' effect, that it is always a case of remembering. Sensation itself is not a case of consciousness, but its 'immediate memory' is. Russell says:

> 'A sensation which is remembered becomes an object of consciousness as soon as it begins to be remembered ..... The essential practical function of "consciousness" and "thought" is that they enable us to act with reference to what is distant in time or space ..... This reference to absent object is possible through association and habit. Actual sensations, in themselves, are not cases of consciousness, because they do not bring in this reference to what is absent.[2]

Russell holds virtually the same view of consciousness in his later works as well. In 'An Outline of Philosophy'[3] he states: "To say that I am 'conscious' of an event is to say that I recollect it, at any rate for a short time after it has happened." In 'An Inquiry into Meaning and Truth'[4] he emphatically argues that we do not know our present percepts or experiences. He says that

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1. The Analysis of Mind, p. 291.
2. Ibid., p.292. 3. Op. Cit., p.299. 4. Op. cit., pp.49 ff.

'knowing' an event is a different occurrence from the event which is known, and that accordingly it is not possible to maintain that we know our present experiences. For, if an experience is one thing and knowing it is another, the supposition that we know our present experiences involves an 'infinite multiplication of every event'; thus, I feel hot; I know that I feel hot; I know that I know ..... etc., 'ad infinitum', which is absurd. Russell, therefore, maintains that as knowing is different from what is known, we do not know our present experiences or percepts. Even perceptual knowledge or consciousness involves memory;[1] percepts are known only when they are remembered.

Throughout his neutral monism Russell has maintained that sensations or percepts are in themselves non-cognitive, and that there can be sensations that are not known. The above argument from the 'infinite regress' is an emphatic assertion of this. This reminds one of Leibniz who used a similar argument to establish 'unconscious' perceptions or mental states. Leibniz held that it is impossible always to reflect expressly upon our thoughts without falling into an infinite regress. Russell in his work on Leibniz recognises this to be his "most conclusive argument" in this connection.[2] According to Leibniz, we are aware of only those perceptions which the mind reflects upon or 'apperceives'. Russell uses his argument not only to assert unconscious percepts, but also to assert that only those percepts are known which are remembered.

Now, two questions are pertinent here. The first is

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1. The same is maintained in Portraits from Memory, p.143.
2. A Critical Exposition of the Philosophy of Leibniz, p.156.

the one which is the only valid part of the criticism of Broad and Joad. The question is why a sensation or percept is not sometimes known, in other words, why a sensation is not sometimes remembered and thus remains unknown. The second question, which is more important, is about why Russell thinks that an image (accompanied by a suitable belief) should constitute the knowledge or consciousness of the sensation which is its prototype, in other words, why it is only memory (immediate or mediate) that constitutes knowledge.

Now, so far as the first question is concerned, Russell does not seem to realise any such difficulty in 'The Analysis of Mind'. But he realises it in his later works and tries to solve it by introducing the notion of what he calls 'noticing'. We shall shortly come to it. But let us consider the second question first.

As to the question why an image should constitute the consciousness of the sensation of which it is a copy, there is, as far as I can see, no straightforward answer to be found in Russell's works. But it is possible to formulate an answer from an analysis of his relevant ideas. Now, a sensation or percept is in itself non-cognitive and does not have that objective reference to absent objects which is characteristic of consciousness. Sensation is the cause of knowledge, through its 'mnemic' effects; knowledge consists not in a single sensation, but arises out of a combination of sensations and images. Perception is knowledge; but it is a complex in which the present sensation gives rise to images and expectations of correlated sensations with the belief

in the existence of an object to which the sensations and images refer. But this is a matter of association and habit due to past experience. For example, the sensations of sight and touch have become correlated due to repeated experience, and their images have become associated. The association, strictly speaking, is not between a sensation and an image of another sensation, but between either two or more sensations, or between two or more images. Now, when we have a sensation which results in perception of an object, the given sensation does not bring about the correlated sensations, because these can only arise through appropriate stimulation of the senses and the brain, which is absent. But in perception there is reference to these sensations which are absent. This is possible through their images which, in fact, are brought up in actual perception. But the present sensation is not itself associated with these images, but the image of which it is the prototype is. This means that until the given sensation changes into its image which becomes assimilated to the image of the similar past sensations (i.e. the same prototype), the correlated images cannot be brought up. As, according to Russell, perceptual knowledge consists in this complex of correlated images, it follows that it is a case of remembering. Thus, for example, when I have the perceptual knowledge of an orange as I see it, what happens is something like this. I have a sensation of a certain coloured pattern. This itself is not the knowledge I have. The sensation changes into an image which brings up images of sensations of touch, smell, taste, etc. correlated with it due to past experience. All these together make up my perceptual knowledge of an orange. It is

'immediate memory' of the given sensation plus the memory of the correlated past sensations; but the latter is not subjectively distinguished from the former and therefore the object to which they refer is believed to be a present object.

This, I think, explains why Russell holds that to be conscious of an event is to recollect it, that images constitute the consciousness of their prototypes. Now, if this analysis is correct, it will be seen that according to Russell perceptual knowledge is apperceptive. Apperception, as it used to be defined in psychology, consists in a new experience being assimilated to, and transformed by, the residuum of past experience of an individual to form a new whole. In epistemology, Leibniz introduced the term 'apperception' as distinct from perception and meant by it the introspective or reflective apprehension by the mind of its inner states or perceptions. Russell maintains that all knowledge is in a sense introspective.[1] This is an aspect of the Leibnizian schema which Russell accepts. But for Leibniz the mind is there to apperceive; for Russell mind is not there already given to perform apperception, but apperception must arise out of a complex of percepts and images. It is possible that Russell is trying to combine in a way the psychological and the Leibnizian epistemological[2] senses of apperception in his explanation of consciousness. That he holds some such position may be seen from a consideration of his concept of 'noticing' which embodies his answer to the

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1. See above, pp. 218-9.

2. Russell considers Leibniz's distinction of perception and apperception as a 'very important advance in psychology'. Cf. A Critical Exposition of the Philosophy of Leibniz, p. 156.

first of the two questions we have raised above.

In 'My Philosophical Development',[1] Russell says that he replaced 'acquaintance' by 'noticing' in his "Inquiry" in order to give a re-interpretation of 'consciousness', 'knowledge', etc., necessitated by his earlier rejection of sense-data and adoption of neutral monism. I should very much like to take his word for it; but as far as I can see, he in fact introduced it in 'An Outline of Philosophy'[2] wherein he calls it 'attention', whereas in the "Inquiry"[3] he calls it both 'attention' and 'noticing'. In these works he accepts 'noticing' as an undefined term; it is a matter of degree and "seems to consist mainly in isolating from the sensible environment".[4] The contents of our mind at any given moment are according to Russell very complex. He says:

> 'Throughout our normal waking life we are always seeing, hearing, and touching, sometimes smelling and tasting, always having various bodily sensations, always feeling pleasant or unpleasant feelings (usually both), always having desires and aversions. We are not normally aware of all these items, but we can become aware of any of them by turning our attention in the right direction..... Out of the whole multiplicity of objects of sense, it /attention/ enables us to single out a small selection ....'[5]

In the "Inquiry" Russell asks: "What must be done with an experience in order that we may know it?"[6] He recognises that

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1. Op. cit., p. 140.
2. Op. cit., p. 213.
3. An Inquiry into Meaning and Truth, pp. 50 ff.
4. Ibid., p. 50.
5. An Outline of Philosophy, p. 213.
6. An Inquiry into Meaning and Truth, p. 50.

many of our experiences are not noticed at the time when they happen, but are known retrospectively when, for example, we are questioned about them; and often we can be sure that the experience was there before we were questioned, that is, before our attention was called to it. So he says:

> 'It seems, then, that the most immediate knowing of which we have experience involves sensible presence plus something more, but that any very exact definition of the more that is needed is likely to mislead by its very exactness ..... What is wanted may be called "attention"; this is partly a sharpening of the appropriate sense-organs, partly an emotional reaction ..... Every empirical proposition is based upon one or more sensible occurrences ..... Such occurrences, we shall say, are "known" when they are noticed. The word "know" has many meanings, and this is only one of them; but for the purposes of our inquiry it is fundamental.'[1]

Russell thus explains knowledge or consciousness in terms of "the relation of noticing". When anything happens to us we may or may not notice it. If we notice it, we may be said to be "conscious" of it.[2]

Now, Russell's concept of 'noticing' may be said to be the same as Leibniz's 'apperception'. Leibniz used the word "distinguées" (translated as "noticed")[3] to explain apperception. Russell uses the same word, and maintains the Leibnizian position that we have at any time a multiplicity of sensations and images, and that those only are known which are noticed. This is a case of reflective apprehension; but it always takes place, according to Russell's analysis, in the form of 'remembering'. Introspection,

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1. An Inquiry into Meaning and Truth, p. 51.
2. My Philosophical Development, p. 144.
3. A Critical Exposition of the Philosophy of Leibniz, p. 276.

for Russell, is retrospection.

But does 'noticing' as Russell conceives it explain the problem which it is supposed to explain? We have asked why a percept is sometimes known and sometimes not. Russell has a 'prima-facie' answer, namely that we know it if we notice it. Here again one may ask why we notice when we do and why we do not notice when we do not. Russell does not give any very clear and detailed explanation. Nevertheless, he suggests that 'noticing' is partly due to the nature of the stimulus and partly due to the emotional significance of the percept. "Sudden loud noise is almost sure to command attention, but so does a very faint sound that has emotional significance."[1] But emotional significance involves the concept of mind or person; something has emotional significance for only a person. 'Noticing' cannot therefore be explained without reference to a person who notices. In fact, attention, noticing, knowing etc., involve the distinction of subject and object. We said earlier[2] that knowledge and thought involve this distinction and that Russell has to re-introduce it in his philosophy after he has removed it from sensation. He, in fact, re-introduces it through the concept of 'noticing' or 'attention', and acknowledges it later.[3] But the subject, for him, is not a single simple thing or 'ego'; it is a complex consisting of a correlated group of sensations and images. We have seen above how he recognises a subject-side and an object-side of the perceptual situation. But, for him, both sides

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1. An Inquiry into Meaning and Truth, p. 51; My Philosophical Development, p. 142.
2. See above, p. 93.
3. My Philosophical Development, p. 139.

are on a level as regards being mental and, therefore, do not involve the subject-object distinction in the sense of 'naive' realism.[1] However, the definition of the 'subject' would require a precise formulation of such concepts as 'I' and 'you' stand for, that is the concept of 'person'; and we shall come to it in a later section of this chapter.

B. Memory and Imagination. In his discussions of memory,[2] Russell begins by showing that there is no logically necessary connection between our present 'remembering' and the past event 'remembered'. The argument is as follows:

> '..... everything constituting a memory-belief is happening now, not in that past time to which the belief is said to refer. It is not logically necessary to the existence of a memory-belief that the event remembered should have occurred, or even that the past should have existed at all. There is no logical impossibility in the hypothesis that the world sprang into being five minutes ago, exactly as it then was, with a population that "remembered" a wholly unreal past. There is no logically necessary connection between events at different times; therefore nothing that is happening or will happen in the future can disprove the hypothesis that the world began five minutes ago. Hence the occurrences which are called knowledge of the past are logically independent of the past; they are wholly analysable into present contents, which might, theoretically, be just what they are even if no past had existed.'[3]

Russell goes on to say that the non-existence of the past should not be entertained as a serious hypothesis.[4] He even

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1. An Outline of Philosophy, p. 221.
2. The Analysis of Mind, ch. IX; An Outline of Philosophy, chs. VI and XVIII; An Inquiry into Meaning and Truth, pp.154 ff; Human Knowledge, pp.203f., 228f., 440f.
3. The Analysis of Mind, pp.159-60; An Outline of Philosophy, p.7; Human Knowledge, p.228.
4. The Analysis of Mind, p.160.

calls it a "silly"[1] hypothesis, and admits that it is "psychologically"[2] and "practically"[3] impossible to doubt the existence of past events. We may also add, as does Price,[4] that the hypothesis, although logically possible, is "causally" impossible. The whole point of the argument is that though the hypothesis seems improbable it is not logically refutable. As Ayer says, "Even the view that the earth and all its inhabitants had come into existence just at this moment would not be formally inconsistent with anything that one could now observe."[5] But although the hypothesis is logically tenable, there is equally no reason for believing it. But then we have to acknowledge that we believe in the existence of past events not because the logical analysis of our present 'remembering' reveals them, but because we find it psychologically or practically impossible to doubt them, and/or because the causal explanation of the present occurrences implies or assumes them. All this means that there is nothing to prove conclusively that our belief in the existence of past events is logically justified, and

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1. 'The Relevance of Psychology to Logic', Proceedings of Aristotelian Society, Suppl. Vol. XVII, 1938, p.53.
2. Ibid., p.53.
3. The Analysis of Mind, p.165.
4. H.H. Price, Thinking and Experience, p.83.
5. A.J. Ayer, The Problem of Knowledge, p.184.

that this belief must always remain a hypothesis or assumption. For any attempt to establish it would at some stage rely on memory, and thereby involve the belief that a past event is, as a rule, correlated with a present memory. We all believe that memory is fallible: that what we take to be a memory is not always correlated with a past event. Nevertheless, we also believe that our memory is generally trustworthy. But even in the case when a memory is taken to be veridical, its veracity cannot be fully established without involving memory. It may be possible to verify a particular case of memory with the help of such evidences as written documents, records, testimonies, etc. But these in their turn must at some stage depend on memory. Thus, although particular cases of memory may be verified, memory in general cannot be verified[1] without falling into 'petitio principii'. It follows that the general trustworthiness of memory is an assumption. As A.J. Ayer says, "one statement about the past is used to justify another; but still there is no independent means of justifying them all. There is not, because there could not be. To obtain this justification one would have to be able to recapture the past in a way that has been shown to be logically impossible."[2] According to Russell, this fact that there is no independent means, other than memory, of arriving at all the facts that we know through memory, makes memory a source or premise of knowledge.[3] It is only

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1. An Outline of Philosophy, pp.207-8; An Inquiry into Meaning and Truth, pp.156-7.

2. A.J. Ayer, The Problem of Knowledge, p.163.

3. An Outline of Philosophy, pp.207-8; An Inquiry into Meaning and Truth, p.157; Human Knowledge, pp.204-5, 440-1.

by assuming that memory is in the main trustworthy that a present memory can be shown to refer to, and represent, a past event. And it is this assumption of the general veracity of memory that implies that memory is causally connected with past events or experiences.

Russell thus maintains that memory-beliefs are "logically independent of the past" and are wholly analysable into present contents. But there is another theory of memory which is sometimes set against Russell's position as being opposed to it.[1] This view is embodied, for example, in R.F. Holland's statement that "whatever I am supposed to have memory knowledge of now is necessarily something I have had knowledge before".[2] According to this view, memory, by definition or as a matter of logical necessity, involves the existence of past events. According to it, memory is infallible.

Now, the opposition between Russell and the supporters of this view seems more apparent than real and to be due to a confusion of the meaning or use of the word 'memory'. As a matter of logical definition of the word 'memory', it seems right to say that it implies the existence of the past event. In this sense, 'I remember R' implies that R existed, just as 'I know that P' implies that P is true. This means that given a case of memory-knowledge of R we have to accept the past existence of R. This definition of memory can be considered linguistically or concept-

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1. A comparative study of the theories of memory of Russell and other philosophers, particularly G. Ryle, may be found in W. von Leyden, Remembering: a Philosophical Problem.

2. R.F. Holland, 'The Empiricist Theory of Memory', Mind, 1954, p.485.

ually without reference to the question if there are genuine cases of memory at all. In this sense the term has application if there are such cases; but if there are no such cases, the definition is still valid, only that it does not apply to anything. This can be stated in the form of a hypothetical proposition, namely, "If I remember R, then R existed". Holland's use of the word "supposed" in his statement is a clear indication of this.

But the word 'memory' is not always used in this strict logical sense which demands that memory must be infallible. We all ordinarily use the word 'memory' in a sense in which memory is not infallible. In this sense, 'memory' stands not only for the veridical cases of remembering but also for the non-veridical cases. Of course, in the strict logical sense the non-veridical cases cannot be called 'memory'. But then the question arises as to what we speak about when we say that 'memory is fallible'. The answer seems to be that it is the memory-claim or memory-belief that is fallible. The confusion is between 'memory-knowledge' and 'memory-belief', a special case of a wider distinction, namely that between knowledge and belief. It seems possible to maintain that belief is a state of mind or a psychological occurrence. But knowledge as distinct from belief is not just a psychological occurrence; it is something more, 'the more' being the truth condition built up in it.[1] It is the psychological occurrence of memory-belief that is either veridical or non-veridical. It has to be distinguished

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1. Cf. A.J. Ayer, The Problem of Knowledge, pp.9 ff.

from the concept of memory as truth condition built up in it, i.e. from the concept of memory-knowledge, which is infallible. To avoid confusion, it would be well to use the word 'memory' for the latter and the word 'remembering' for the former, that is, for the psychological occurrence of memory-belief.

Now, if I have a memory of R, then R existed. One may raise the sceptical question: Is there a case of memory? One may argue that what in fact we have are some experiences we call 'remembering' or 'memory experiences'. These are all in the present and have nothing in them to assure us of the reality of past events. No amount of logic or logical analysis of the present experiences gives us the knowledge of the reality of past events or enables us to distinguish the veridical from the non-veridical cases. The veridical memory experiences "will not differ qualitatively from those that are delusive".[1] Moreover, as Russell points out, it is logically possible that all memory experiences are non-veridical. This cannot be logically refuted. The experiences of remembering as psychological occurrences are logically independent of past events. There is nothing in the present memory experience which will justify the truth of the statement about the existence of the past event, and whatever the characteristic of the memory experience, "it would always be logically consistent with it that the statement in question should be false".[2]

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1. A.J. Ayer, The Problem of Knowledge, p.169.
2. Ibid., p.169.

In Russell's theory, it is the memory-belief or the psychological occurrence called memory experience that is said to be logically independent of past events. This follows from a wider premise, namely that events at different times have no logically necessary connection between them. Russell is not so much concerned with the linguistic or conceptual definition of the term 'memory' as with the analysis of 'remembering', that is, of what happens in us when we have memory-beliefs.

Russell gives an analysis of 'remembering' in terms of the particulars and qualities that constitute the present content of a memory-experience; and in this he uses the word 'memory' in the sense of 'remembering'. The existence of past events remembered is taken by him as a matter of belief or assumption, and not as a matter of logical necessity. Following Bergson,[1] he distinguishes two forms of memory, namely 'habit-memory' and 'recollection proper' (also called 'true' memory and knowledge memory). Habit-memory, according to Bergson, is involved in such cases as, for example, when we learn a lesson by heart; when we learn it by heart, we are said to 'remember' it, but this only means that we have only acquired a habit. But remembering a unique event, as for example when I remember what I ate for breakfast this morning, is different from learning a lesson by heart. This is a case of recollection proper. Russell accepts this distinction as a matter of theory; but he recognises that there are practical difficulties in drawing any sharp lines. For "habit is a very intrusive feature

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1. H. Bergson, Matter and Memory, Ch. II, pp. 86 ff.

of our mental life, and is often present where at first sight it seems not to be."[1] There may be habits of remembering unique events, as for example when habits of words may fulfil the function of recollection.

In regard to memory, there are, according to Russell, two distinct questions: (1) what is happening now when I recollect? and (2) what is the relation of the present happening to the past event that is remembered?[2] Of these two questions, the first is a psychological one, while the second belongs to the theory of knowledge. Russell's analysis of memory is an attempt at finding such an account of the present occurrence in remembering as will make it not impossible for remembering to give us the knowledge of the past.

Russell carries out his analysis of recollection mainly with reference to those cases which depend on images. This does not mean that, according to him, memory always depends on images. Habit-memory does not usually require images. Even such cases as for example the recollection of what I ate for breakfast this morning may not always involve images: "Sometimes words may come without the intermediary of images."[3] For Russell, images are not essential for memory. "Sometimes there are memory-images, sometimes not; sometimes when images come in connection with memory, we may nevertheless know that the images are incorrect, showing that we

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1. The Analysis of Mind, p. 166.
2. Ibid., p. 178; An Outline of Philosophy, pp. 205-6.
3. The Analysis of Mind, p. 175.

have also some other and more reliable source of memory. Memory may depend upon images ..... But it may also be purely verbal."[1] Russell even speaks of himself as a poor visualiser; he says that he can remember things more easily in the form of verbal descriptions than in the form of images. He does not think that "there is anything in memory that absolutely demands images as cpposed to words".[2] Nevertheless there are cases of memory which depend on images, and Russell's analysis of recollection in terms of images and their qualities concerns these cases only. In the case where words replace images, the same or similar analysis will apply; the characteristics present in image-memory will also be there in word-memory.

Images, according to Russell, are vague copies of sensations. But images themselves cannot constitute memory, for they are equally present in dream, imagination, etc. So that images may give memory, they must be accompanied by a belief in past existence, that is by our confidence in them as copies or representations of past sensations. What is needed is some characteristics of memory-images, which will distinguish them from images in dreams and imaginations. Our belief or "confidence or lack

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1. An Outline of Philosophy, p. 195.

2. Ibid., pp. 195-6. A.J. Ayer states: "Assuming, as they both Hume and Russell do, that the past event, or experience, which is remembered, cannot itself be present to the mind, they infer that something else must be; and an image then seems to be the only candidate." (The Problem of Knowledge, p. 156). But in view of what we have said, it seems impossible to accept this statement in so far as it refers to Russell.

of confidence in the accuracy of a memory-image must be based upon a characteristic of the image itself, since we cannot evoke the past bodily and compare it with the present image."[1]

Hume maintains that memory-images differ from impressions by being fainter and from the images of imagination by being livelier.[2] Russell realises the difficulty of distinguishing memory-images by their faintness and liveliness. He accordingly speaks of some other characteristics of memory-images. One of them is what he calls "feeling of familiarity".[3] Some images, like some sensations, feel very familiar, while others feel strange. This is a matter of degree. In a complex image, some parts of it may feel more familiar than others; in this case we feel more confident in the accuracy of the familiar parts than in that of the unfamiliar parts.[4] Familiarity is a feeling, capable of existing without an object, but normally standing in a specific relation to some object. "The judgement that what is familiar has been experienced before is a product of reflection, and is no part of the feeling of familiarity ..... Thus no knowledge as to the past is to be derived from the feeling of familiarity alone."[5]

Another important characteristic which memory-images

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1. The Analysis of Mind, p. 161.
2. D. Hume, A Treatise of Human Nature, Book I, Part I, Sec. III.
3. The Analysis of Mind, pp. 161, 168-9; An Outline of Philosophy, pp. 203-4, 206.
4. The Analysis of Mind, p. 161; An Outline of Philosophy, pp. 206-7.
5. The Analysis of Mind, p. 169.

must have is what is called "reference to the past".[1] Even when recollection is purely verbal, this characteristic as well as the feeling of familiarity must be present. The reference to the past is due to more than one feature of recollection. When a present occurrence, sensation or image, suggests something by association, the suggested element is found to be different from present sensible occurrences. This difference, together with the inconsistency of the suggested element with present facts if it were placed in the present, may be taken as a cause of our referring it to the past. But difficulty arises from the consideration that these differences and inconsistencies might very well be the reason for regarding the suggested elements as purely imaginary. Something more is therefore necessary to explain why we sometimes refer the 'suggestion' to the past and sometimes take it as mere imagination.

This brings us to another feature of memory as opposed to imagination. This concerns the order of the suggested elements or images. In memory the several images appear in the same order as their prototypes,[2] whereas in imagination several "known elements" combine in a new order. Memory does not, like imagination, involve a re-arrangement of elements derived from past experience. Thus Russell says that "in imagination there is 'a novel combination of known elements', ... if nothing is novel, we have a case of memory, while if the elements, or any of them,

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1. The Analysis of Mind, pp. 162 ff; An Outline of Philosophy, pp. 196 ff.
2. The Analysis of Mind, p. 162; An Outline of Philosophy, p.199.

are novel, we have a case of perception".[1]

Thus the inconsistency of the elements suggested by association with present sensible facts and the order in which they arrive give us a feeling that makes us refer our recollections to the past. The feeling of familiarity and the reference to the past are the characteristics of memory-images and memory-descriptions which, according to Russell, give us the confidence in the accuracy of their being copies or representations of past events. But it should be remarked that familiarity and reference to the past cannot be sharply distinguished; because the reference to the past cannot be fully independent of familiarity. The order in which the memory-images appear must be felt as familiar. Russell realises this and accordingly suggests that familiarity is perhaps enough to cause us to refer memory-images to the past.[2]

Now, 'reference to the past' does not give us the idea of 'pastness', neither does the 'feeling of familiarity'. The reference of something to the past presupposes the idea of pastness, and so there must be some independent source from which we can derive the idea of pastness. Russell rightly thinks that we do not get the idea from recollection or memory proper.[3] According to him, we derive it from 'immediate memory' involved in the perception of temporal succession within the 'specious present'. We shall come to it shortly.

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1. An Outline of Philosophy, p. 199.
2. Ibid., p. 206.
3. For the difficulties in deriving the idea of pastness from memory, see G.E.M. Anscombe, 'The Reality of the Past', Philosophical Analysis (ed. M. Black), pp. 41 ff.

Between sensation and recollection, Russell recognises several stages[1] which are on way to recollection. Thus 'true' recollection appears at the end of a series of gradual progress. These stages are images, familiarity, habit-memory, recognition and immediate memory. Of these, we have already considered the first three. We therefore need here very briefly to consider the last two, and then say a final word on 'true' recollection.

Now, recognition[2], according to Russell, has two forms. Firstly, when, for example, one sees a dog and says "there is a dog" without even recalling that one has seen a dog before, one has recognition. But this does not involve any knowledge about the past; it is only an associative habit. Secondly, one may know that one has seen this before, but one may not know where and when. In such a case there is some knowledge about the past; but this is not recollection. "This is about the minimum of knowledge about the past that actually occurs."[3]

'Immediate memory'[4] is something which, according to Russell, is intermediate between sensation and memory proper. When a sense-organ is stimulated, it does not, on the cessation of the stimuli, return at once to its unstimulated condition. When we see a flash of lightning, our sensation lasts longer than the lightning as a physical occurrence. A sensation fades gradually, passing by continuous gradation to the status of an image. The

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1. The Analysis of Mind, pp.168 ff; An Outline of Philosophy, pp.203 ff.
2. Ibid., p. 204; The Analysis of Mind, pp. 169-72.
3. An Outline of Philosophy, p.204.
4. Ibid., pp.204-5; The Analysis of Mind, pp.174-5; Human Knowledge, p.111.

sensation, while it is fading, is called an "akoleuthic" sensation; and this retention and knowledge of the immediate past in a condition intermediate between sensation and image is called 'immediate memory'.

This fact of 'akoleuthic' sensation or immediate memory, according to Russell, is of great importance in connection with our knowledge of temporal succession. There is a short time during which the sensation is fading. Everything belonging to it is sensibly present to us during this period. This short finite time is called "specious present". Russell,[1] Broad,[2] and some other philosophers derive the concept of pastness from the knowledge of temporal succession within the 'specious present'. 'Akoleuthic' sensations, according to Russell, enable us to perceive a movement as a whole, as for example when we see the second-hand of a watch moving or a finger moving quickly from the right to the left. In this case the whole movement falls within the 'specious present'. In it we can distinguish earlier and later parts by the felt degree of the fading of the sensation: the earliest parts are those that have faded most, whereas the latest parts are those that retain their full sensational character. Thus temporal succession falls within one experience; and the idea of pastness is derived from this.

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1. The Analysis of Mind, pp. 174-5; An Outline of Philosophy, pp. 203, 204-5; An Inquiry into Meaning and Truth, p.147; Human Knowledge, pp. 226-7.

2. Mind and its Place in Nature, p. 267.

According to this view, the present for our awareness is not just an instant without perceptible duration, but has a perceptible duration within which we can recognise an earlier and a later part. Since we are aware of a temporal sequence in the 'specious present', we can define the past as that which is earlier than the 'specious present'. Ayer who in fact supports this view does not use the term 'specious present', but he asserts that the relation of temporal sequence is "given" to us in experience, that "As a matter of empirical fact, one can see or hear A-following-B, in the same immediate fashion as one can see A-to the left of-B".[1] He thinks that this relation of temporal precedence, coupled with the notion of the present, is all that is needed to yield the notions of both the past and the future. Woozley remarks that the technical title of the 'specious present' is "unfortunately apt", but that there is no reason for denying its occurrence.[2] It is a matter of observation that we know temporal sequence in our experience, and therefore it seems reasonable to maintain that the idea of pastness is derived from it.

Now, in regard to the theory of pastness as being derived from the specious present, there is a point of historical interest which needs a little clarification. In 'An Outline of Philosophy'[3] (1927) Russell says that the theory was suggested by

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1. A.J. Ayer, The Problem of Knowledge, p. 170.
2. A.D. Woozley, The Theory of Knowledge, p. 49.
3. Op. cit., p. 203.

Broad in 'Mind and its Place in Nature'[1] (1925). This might be taken to mean that Russell accepted it from Broad. But this could not be the case. For, Russell himself produced the very same theory in 'The Analysis of Mind' (1921) as already referred to above. In this earlier work[2] he begins his account of the theory by making a reference to William James whom he quotes as saying that the apprehension of the immediate past in an experience intermediate between sensation and image is "the original of our experience of pastness, from whence we get the meaning of the term" (Psychology, I, p.604). The term 'akoleuthic' sensation is taken from Semon.[3] It seems clear from this that Russell has developed the conception of 'specious present' and the theory of the idea of pastness by following the suggestion made by James and by utilising a term taken from Semon. His attribution of the theory to Broad cannot, therefore, be accepted as such. The two philosophers may have developed the idea independently of each other; but this seems very unlikely. Russell's referring of it to Broad may be one of those cases of his over-generosity in attributing ideas to other philosophers which Allan Wood refers to[4], or a case of forgetfulness due to his habit of not re-reading his own books once they were published.[5]

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1. Op. cit., p. 267.
2. The Analysis of Mind, p. 174. 3. Ibid., p.175 foot-note.
4. Cf. My Philosophical Development, p. 273.
5. Ibid., p. 274.

Coming back to 'true' recollection, we have to refer once again to the two questions involved, one about the present content of recollection, and the other about the relation of the present content to the past event remembered. We have already considered the first; Recollection consists of images (or verbal descriptions) and a belief that refers to the past. An image (or verbal description) does not constitute recollection unless it is believed to be a copy of a past event which is its prototype.

As to the relation of the present happening to the event remembered, Russell's explanation is briefly as follows. If we recollect correctly, the several images will have that kind of resemblance of quality that they can have to their prototypes; their structure and relations will be identical with those of their prototypes. It is the similarity of quality and identity of structure between the complex image and a past perception that the correctness of memory consists of.[1]

The causation of memory, according to Russell, is wholly associative.[2] Something in the present is similar to something in the past, and calls up the past context in the form of images and words. When "attention" falls upon this context, we believe that it occurred in the past, and thus we have recollection. Recollection is a matter of associative reproduction due to past experience. It involves 'mnemic' phenomena. We have seen how Russell changes his explanation of 'mnemic' causation at the

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1. An Outline of Philosophy, p.207.
2. Ibid., p. 208.

two stages of his neutralism. His concept of associative causation of memory has therefore to be understood accordingly. In his complete neutral monism, the causal explanation of memory would include a causal chain of events persisting in the brain due to past experience, and the association of events in the brain.[1]

We have seen that Russell introduces the notion of 'noticing' or 'attention' at the later stage of his neutral monism. Memory, like perception, involves attention. As we have already considered the concept, it should not detain us here any longer. But what seems to demand attention is the fact of belief involved in memory. Memory-belief involves a specific feeling that makes the belief refer to the past. But then what is a belief?

C. Belief. In 'The Analysis of Mind'[2] Russell gives an analysis of 'belief' which he seems to assume in his later works. In this he uses the 'act-content-object' schema in a modified form in which he substitutes 'feeling' for 'act'. He recognises three factors in a belief, namely (1) believing, (2) what is believed, and (3) the objective.[3] When, for example, we believe that Columbus crossed the Atlantic, there are two things that occur in us, namely the believing and what is believed. These are to be distinguished from the objective fact to which the belief refers, namely the actual crossing of the Atlantic by Columbus. It is this objective fact that makes the belief true or false. The truth or

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1. See above, pp. 129-31.
2. Op. cit., Lecture XII.
3. The Analysis of Mind, p. 233.

falsehood does not depend upon the intrinsic nature of the belief, but upon the nature of its relation to its objective.[1] Accordingly the intrinsic nature of belief can be treated without reference to what makes it true or false.[2]

Russell says that we have to distinguish the "believing" from what is believed (i.e. the content of belief). What is believed is a complex of sensations or images or both; when expressed in language it is a proposition. It may be different in different cases, as in our beliefs that Columbus crossed the Atlantic, and that the Derby will take place to-morrow. But the 'believing' in each case is the same.[3]

We may bring out this distinction in another way. We believe in many things. Thus, for example, I may believe in P, Q, and R. The content, or what is believed, is different in each case. But as beliefs they must have something in common. This may be called the 'attitude' I take towards P or Q or R. The mere presence of the idea of P is not belief, for I may or may not believe

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1. There seems to be a further point about objective reference of belief irrespective of its truth or falsehood. This arises from a consideration of the fact that several people may have the same belief which may be either true or false. The question is as to what constitutes the inter-subjective objectivity of the belief. Russell seems to have left this out of account. But he has never meant his analysis to be complete in all respects. What he is concerned with is to give an analysis of the intrinsic nature of belief as a psychological occurrence, which can be treated apart from the question of both the objective that he recognises and the inter-subjective objectivity which he omits.
2. The Analysis of Mind, p. 232.
3. Ibid., pp. 232-3.

in P. This means that I have to take a definite 'attitude' towards P; thus, the idea of P and the 'attitude' towards it together constitute the belief. What Russell calls 'believing' or 'belief-feeling' may be taken as this 'attitude' towards the content of belief.

The 'believing', Russell says, must not be taken in the sense of Meinong's mysterious 'act'; it is, in fact, "an actual experienced feeling, not something postulated, like the act."[1] He recognises, among others, three main forms of belief, namely memory-belief, belief of expectation, and belief of assent.[2] These are exemplified in our beliefs in the following three propositions: (a) it rained yesterday; (b) it will rain to-morrow; and (c) rains occur. In each case there is a specific feeling that attaches to the proposition believed. Russell calls it 'belief-feeling'. He does not offer any special analysis of the belief-feeling. He says non-committally that it may be a sensation, or an image, or a complex of either or both.[3]

Now, when Russell calls believing a feeling, he is using the word 'feeling' in a special sense, and not in the ordinary sense in which it means the feeling of pleasure and pain, or comfort and discomfort. He says that he does not know how to

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1. The Analysis of Mind, p. 233.
2. Ibid., p. 244.
3. Ibid., p. 187.

analyse the sensations and/or images that constitute the 'belief-feeling', but he is "not prepared to say that they cannot be analysed."[1] This may be possible; but the possibility has not actualised in his philosophy. He calls the 'believing' an "actual experienced feeling"; he does not say that it feels as a sensation or an image or a complex of them. But if it does not feel so and if it is of a different kind from feelings which he analyses, one might argue, as does Laird, that it is just an "experienced feeling" and not a sensation or image, and that Russell is therefore "peopling the 'mind' with stowaways whose very existence he began by denying".[2]

But perhaps Russell is not really introducing some new elements into his philosophy under the name of 'belief-feeling' or 'believing'. He may be right in suggesting that belief, though a very complex phenomenon, does not involve anything other than sensations and images, and their relations. He seems definitely right in his contention that believing is different from what is believed. The believing or belief-feeling cannot be a function or property of the content of belief alone; for the content may or may not be believed, and it may be sometimes believed and sometimes not. As we have said, the content and an 'attitude', or what Russell calls 'believing' or 'belief-feeling', together make the belief. The belief-feeling attaches to the content. To understand 'believing' it is perhaps necessary to ask why some propositions are believed while others are not, and why the same pro-

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1. The Analysis of Mind, p. 250.
2. J. Laird, in The Philosophy of Bertrand Russell, p. 313.

position is sometimes believed and sometimes not. Various replies may be possible. But one general answer would be to say that something is believed because it 'agrees' with our experiences (i.e. experiences other than those forming the content of a belief). These other experiences may include some or all of our present and past experiences, and/or their effects in the form of images and habits. The believing or belief-feeling would then consist in the relation of the content of belief to these other experiences; it would be a property that attaches to the content because of its relation to other experiences. These other experiences consist of sensations and images, and may or may not be conscious. As, in belief, attention falls upon the content, it is the content that is consciously apprehended together with the belief-feeling that attaches to it because of its relation to other sensations and images which are not, however, consciously apprehended. Or, it may be the case that, although these other sensations and images are not being individually apprehended, their presence together with their relation to the content of belief constitutes a sort of consciousness or feeling with reference to the content which is being consciously apprehended; and this feeling may be called believing or belief-feeling. Put in either way, the belief-feeling involves sensations and images other than those which form the content of belief, but not anything other than sensations, images and their relations.

If one likes, one may say that in belief, as in perception, there are two sides, subjective and objective. The content may be taken as forming the objective side, whereas all the

other sensations and images may be said to form the subjective side of belief. But in this case, as in perception, there would not be a subject which is a single simple substance or ego or act.

Russell seems to imply some such explanation of belief-feeling as above in his reply[1] to Laird's criticism of his conception of 'feeling' in general and 'belief-feeling' in particular. He still denies emphatically that there is an observable subject in the sense of a substance or Meinong's act. But he admits that it is necessary to provide an explanation of the difference between 'you' and 'me'. He says that if we take remembering or believing (or being remembered by or being believed by) as a relation, 'I' is anything compresent with any member of the 'ancestry' of 'this' (i.e. the content of memory or belief). Here Russell's statement is very brief; but it is possible to analyse the full implications of the statement. This we shall do in the next section. For the moment, it suffices to notice that here 'I' refers to all sensations and images which (along with the content 'this') are parts of one biography or 'mind'; and that believing consists in the relation of the content to other sensations and images that form parts of one mind.

D. Emotion, Desire and Will. Russell's discussions of these phenomena are often brief, and we can perhaps be briefer still; for, in so far as they are conscious processes, their explanation includes that of perception and memory which we have already considered. As regards emotions, Russell recognises the importance

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1. The Philosophy of Bertrand Russell, p. 699.

of the physiological causation and constitution of them. He refers in this connection to James-Lange theory and its criticism made by Sherrington and Cannon.[1] Without taking a definite side in that debate, he accepts this much that bodily conditions are involved in both the causation and the constitution of emotions. An emotion involves knowledge of something; it is the perception, of a bodily condition according to James, or of an external object according to his opponents.[2] In respect of causation, secretions from certain glands into the blood are essential conditions of emotions. These produce bodily changes which form parts of a full emotion; But these alone are not sufficient to account for emotions, because bodily changes appropriate to an emotion may be produced by administering drugs, but if there is no knowledge of the proper object of the emotion, it may fail. Only the objectless emotions, for example melancholy, may be entirely due to physiological conditions. In other cases the knowledge of the object is necessary.[3]

Emotion, according to Russell, is a very complex phenomenon. It is "essentially a process", and in its entirety contains perception or knowledge and "dynamic elements such as motor impulses, desires, pleasure and pain".[4] Desires, pleasures and pains are characteristics of processes, "not separate ingred-

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1. The Analysis of Mind, pp.280-3; An Outline of Philosophy, p.226.
2. The Analysis of Mind, p. 284.
3. An Outline of Philosophy, pp. 226-7.
4. The Analysis of Mind, p. 284.

ients". And perception or knowledge involves only sensations and images. Therefore, "the ingredients of an emotion are only sensations and images and bodily movements succeeding each other in a certain pattern".[1]

We have already given a short account of Russell's conception of desires,[2] and we have little to add here. For him, all desires are initially 'blind'. Even when we reach the level of conscious explicit desires, we are not in fact attracted to a goal, but pushed from behind.

Like conscious desires, 'Will', according to Russell, is a late development in our life. He rejects the idea of 'will' as a faculty which is for him a metaphysical superstition. He recognises it only as an observable phenomenon. In this sense it concerns voluntary movements. A child's movements are not at first voluntary, but are only reflexes. As a result of repetition of a reflex movement, the child discovers that the movement is either pleasurable or unpleasurable. It thus learns to think of the movement first and then make it. "Obviously we cannot think of a movement unless we have previously made it; it follows that no movement can be voluntary unless it has previously been involuntary."[3] This view was suggested by William James, and is accepted by Russell at all stages of his neutralism.[4] A voluntary

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1. The Analysis of Mind, p. 284.
2. See above, pp. 225-6.
3. An Outline of Philosophy, p. 231.
4. The Analysis of Mind, pp. 284-6; An Outline of Philosophy, p. 231 f.

movement, for him, is one that is preceded by the thought of it and has the thought of it as an essential part of its cause.

Volition[1], in the emphatic sense of decision after deliberation, involves voluntary movement as an essential part of it, but it also involves thoughts of conflicting forces, that is the thoughts of the pleasurable and the unpleasurable associations of the movement and/or the thoughts of alternative movements and their associations. There is thus a conflict of desires or thoughts, which produces a sort of tension until one or other thought proves stronger and decides the case. Here again, the thoughts involve nothing more than sensations and images. Russell therefore concludes that 'will' adds no new irreducible ingredients to the analysis of mind.

3. The Definition of Mind

Russell, we have seen, explains various mental phenomena in terms of sensations and images and their correlations. There is no entity or substance called ego or consciousness. Mind is not a simple thing over and above the mental phenomena. It is rather a complex structure consisting of the mental phenomena themselves which in their ultimate analysis are only complexes of sensations and images. The mind of an individual at a particular moment consists of all the sensations (or percepts)

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1. The Analysis of Mind, pp. 285-6; An Outline of Philosophy, p. 232.

and images that he has at that moment; and the history or biography of the mind consists of all the sensations and images he has had during his life-time. Thus sensations and images are the 'ultimate' constituents of mind. But they are also the constituents of matter. As mind and matter are composed of the same neutral stuff, it is therefore necessary to define the characteristics that distinguish mind from matter. In other words, we need a definition of mind as distinct from matter.

Now, consciousness in the sense of awareness is not a universal characteristic of all that is mental. It is therefore "too narrow" to be able to offer a definition of mind. Again, 'mnemic' causation is "too wide", because it is present to some extent even in non-living matter. So is "subjectivity", being present in all perspectives, mental and physical. The other so-called dualistic criteria are all inadequate. The search for the special characteristics that would distinguish mind from matter and thus define it leads Russell ultimately to the causal characteristics of mental phenomena as distinct from those of the physical phenomena. He recognises two kinds of causal laws, namely the psychological and the physical causal laws. Mind is a collection of neutral particulars grouped according to psychological causal laws, whereas matter is a collection according to physical causal laws.[1] Thus causal laws, and for that matter causal characteristics, form the fundamental basis of the distinction of mind and matter.

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1. The Analysis of Mind, pp.93 ff, 137, 301 ff; An Outline of Philosophy, pp.298 ff; Portraits from Memory, pp.148-9, 152.

Russell is, therefore, a metaphysical monist and causal dualist. That causal dualism is ultimate has remained a basic idea throughout his neutral monism, although at times he has wished to become a causal materialist. Materialism has two types: First, the ultimate stuff of the world is physical or non-mental; secondly, all genuine ultimate laws are physical. That Russell rejects materialism in the first sense is obvious. The second sense of materialism concerns the questions as to whether psychological causal laws are reducible to or deducible from physical causal laws, whether the propositions of psychology are translatable into those of physics, and whether physical determinism is ultimate.

Now, as to the irreducibility of psychological laws to the laws of physics, Russell's views in several of his works[1] are very straightforward. In them he maintains that psychological laws are genuine and cannot be reduced to or deduced from physical laws. In 'The Analysis of Matter' and 'An Outline of Philosophy', he has sometimes said that physical laws are universal[2] and that "physical causal laws are those that are fundamental".[3] But in these two books he has also said the following:

> ' ..... physics ..... might be able to trace the physical properties of the ..... events in the eye and the brain, one of which is, in fact, a visual percept; but it could not itself give us the knowledge that one of them is a visual percept. It is obvious that a man who can see knows things which a blind man cannot know; but a blind man can

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1. The Analysis of Mind, pp.93 ff, 137, 301 ff; Human Knowledge, pp.63f; Portraits from Memory, pp. 148-9, 152.
2. The Analysis of Matter, p. 393.
3. An Outline of Philosophy, p. 156.

know the whole of physics. Thus the knowledge other men have and he has not is no part of physics.'[1]

'..... there certainly is knowledge in psychology which cannot ever form part of physics.'[2]

'No amount of physics can tell us all that we do in fact know about our own percepts.'[3]

We have seen that Russell has changed his explanation of 'mnemic' causation at different stages, and that his explanation of it with reference to modifications of the structure of the brain does not necessarily reduce it to physical causation. In view of this and the statements quoted above, it is not possible to maintain that Russell has ever succeeded in maintaining causal materialism. The above statements bring out also what his attitude is towards physicalism according to which all statements of scientific knowledge can be translated into the language of physics.[4]

As regards physical determinism, Russell maintains that modern quantum theory destroys any form of mind-body determinism. He says that the minute phenomena in the brain which make all the difference to mental phenomena may belong to a region where physical determinism does not hold. This, he says, is a mere speculative possibility, "but it interposes a veto upon materialistic dogmatism".[5]

We may, therefore, conclude that Russell is a causal dualist.[6] Thus, according to him, 'being grouped according to

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1. The Analysis of Matter, p. 189.
2. An Outline of Philosophy, pp. 300, 183. 3. Ibid., p. 295.
4. See for example, R. Carnap, Philosophy and Logical Syntax, p.89.
5. The Analysis of Matter, p. 393; Human Knowledge, pp. 55-6.
6. M. Weitz, op. cit., p. 78.

psychological causal laws' is the differentia of the collection of events that is a mind, and 'being grouped according to physical causal laws' is the differentia of the collection called matter.

Now, it seems natural to ask: what is the basis of the distinction of the psychological and the physical laws? We have already hinted to what the answer would be. We have said[1] that, although Russell rejects the distinction of privacy and publicity of events as a dualistic criterion of the mental and the physical, he nevertheless recognises that in an important sense this distinction is the source of our distinguishing what we call mental and physical. In this connection we have also seen how Russell thinks that introspection gives us knowledge which is no part of physics. So, ultimately it is the introspective knowledge of what is private to ourselves that forms the basis of our distinguishing psychology from physics, the mental from the physical. When someone has a thought or feels a pain, others may have an indirect and inferential knowledge of it, but they do not have the same knowledge as one has. So, Russell thinks that in an important sense there are private events, i.e. events that are private to ourselves. These events may be public, but their publicity is only inferential[2] in the sense that they can be known by others only through inference. On a commonsense level, these events may be called 'mental events'.

But Russell recognises that, stated in terms of the private

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1. See above, p. 220.

2. Human Knowledge, p. 67; See above, p. 220.

and the public, the distinction is not good enough for theoretical purposes. As we have seen, every event is in some sense private and in some sense public. It is, therefore, necessary to distinguish between the events which are private to ourselves, and the events which, though private to the perspectives to which they belong, are somehow different from the former. This can be done, Russell suggests, by reference to the ways in which the events are known. The events that are private to ourselves are known by us directly without inference. But the events that belong to outside perspectives can be known by anyone only through inference. Russell therefore comes to recognise that the distinction of the mental and the physical is basically epistemological. So he says:

> ' ..... the "mental" and the "physical" are not so disparate as is generally thought. I should define a "mental" occurrence as one which some one knows otherwise than by inference; the distinction between "mental" and "physical" therefore belongs to theory of knowledge, not to metaphysics.'[1]

The distinction is not exclusive. The mental events can be, and in fact are, also physical. As Russell says:

> 'My own belief is that the distinction between what is mental and what is physical does not lie in any intrinsic character of either, but in the way in which we acquire knowledge of them. I should call an event "mental" if it is one that somebody can notice ..... I should regard all events as physical but I should regard as only physical those which no one knows except by inference.'[2]

Russell does not, however, mean that the events which are here called 'only physical' cannot, in principle, be mental as

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1. Human Knowledge, p. 224.
2. My Philosophical Development, p. 254.

well. He suggests that we have no positive argument to prove that they are not thoughts, except such as may be derived from observation of the differences between living and dead matter together with inferences based on analogy of its absence. Nor do we have any evidence that they are mental. We may only suppose that it is highly improbable that they are mental, but we are certainly wrong, says Russell, if we say that it is impossible.[1]

Although there is no exclusive division of events into 'mental' and 'physical', it is still possible to distinguish events that are private to ourselves and known by us without inference. If it is accepted that there are such private events, "there is no reason why there should not be a science of them."[2] Psychology is the science which deals with such "private data and with the private aspects of data which commonsense regards as public."[3] In contrast, physics is the science of what are in this sense public events and of the public aspects of events in general. As sciences, they define different laws, psychology being concerned mainly with "laws that connect one mental event with another"[4] thus forming the groups called minds, and physics with laws connecting events into physical groups including those called pieces of matter.

We should note that the distinction of the psychological and

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1. Human Knowledge, pp. 246-7.
2. Ibid., p. 62.
3. Ibid., p. 59.
4. Ibid., p. 63.

the physical causal laws and its connection with that of the private (introspective) and the public, as explained above, have been always there in Russell's neutral monism; but this connection, particularly the epistemological basis of the distinction comes out more prominently and is explained more elaborately in 'Human Knowledge' than in the earlier works.

We should observe that this epistemological definition of the mental and the corresponding distinction of psychology and physics do not appear to be altogether satisfactory. We certainly include as mental events those which are 'unconscious', and we apply some mental characteristics to animals as well. Russell himself admits these and takes human mental life as being continuous with animal life. But the definition of the mental events as being those which people know introspectively is as such too narrow for all these. In order therefore to accommodate these mental events which are not introspective in any straightforward sense, the definition has to be interpreted and applied somewhat liberally. Now, the unconscious mental events are such that they have been at some stage on the level of consciousness or introspection and may at times come up to this level. So, in a generalised sense they can be taken as introspective data. So far as attribution of mental characteristics to animals is concerned, this is done on analogy on the basis of the observation of their behaviour. The events that constitute their mental life are such as are taken as somewhat analogical to our introspective data. In this way, the unconscious mental events and the mental events of animal life can be said to be connected with introspective data, and

therefore introspection may be regarded as the basis of the distinction of psychology and physics. We may remember in this connection that in ontology Russell begins by accepting the truth of science and physics and psychology as two fundamental sciences. In introspection he finds an epistemological justification of the distinction of physics and psychology.

Russell recognises that physics has attained a state of precision in defining its laws, which psychology has not yet achieved. Nevertheless psychology is a science distinct from physics and physiology, and in part independent of them.[1] "Although, at present, it is difficult to give important examples of really precise mental causal laws, it seems pretty certain ..... that there are such laws."[2] In many cases psychological knowledge is based upon "unformulated mental causality" and is "pre-scientific, but it could not exist unless there were scientific laws which could be ascertained by sufficient study".[3]

In order to explain mind and its differences from matter, Russell has utilised different other notions. Subjectivity which mind shares with non-mental perspectives plays an important role in 'The Analysis of Mind'[4], but not so much in the later works. In this early work, the explanation of mind as distinct from matter involves the distinction of 'active' and 'passive' places. This is

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1. Human Knowledge, p. 65.
2. Ibid., p. 65.
3. Ibid., p. 64.
4. Op. cit., pp. 295-6.

related to the distinction of perspective and physical object or piece of matter. Not every perspective or series of perspectives is a mind. The perspective or biography that falls under psychological causal laws forms a mind; and this is found at the place of an organism with sense-organs, nerves and brain. Several things combine; a group of appearances forming a perspective at a 'passive' place and falling under psychological causal laws and being combined with 'mnemic' phenomena make a mind. In this explanation, the distinction of 'active' and 'passive' places forms a basis of the two ways of grouping particulars. Thus Russell says that causal laws of physics "group together particulars having the same 'active' place, while psychology groups together those having the same 'passive' place".[1] But we have already seen that the conception of 'active' and 'passive' places does not and cannot offer a basis of the distinction of mind and matter in his complete neutral monism[2] in which the events that constitute both a mind (or a perspective) and a piece of matter (viz. a brain) are at the same place.

At the later stage of the theory, the manner in which events fall into groups according to psychological and physical laws is given in the following passage:

> 'Even if a mind consists of all the events in a brain, it does not consist of bundles of these events grouped as physics groups them, i.e. it does not lump together all the events that make one piece of matter in the brain, and then all the events that make up another, and so on.'[3]

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1. The Analysis of Mind, p. 301.
2. See above, p. 196.
3. An Outline of Philosophy, p. 300.

Russell seems to mean that between the events which make up one atom or electron in the brain and the events which make up another, there can be another sort of relations, namely relations according to the psychological causal laws of habits, association, memory, etc. These laws do not require events to be grouped into lumps, but into a different arrangement in which the elements of different physical lumps become related to each other. Thus the consideration of psychological relations of events requires a breaking up of the lumps into which physics groups the events.[1] It is this different grouping that distinguishes mind from matter, and psychology from physics. The difference between mind and matter is a difference of arrangements of events in different contexts. Thus "the context of a visual sensation for physics is physical, and outside the brain ..... The context of the visual sensation for psychology is quite different."[2] The context in the latter case is a "number of events (which) will take place in your mind in accordance with the laws of psychological causation, and it may be quite a long time before there is any purely physical effect .....".[3]

In his complete neutral monism, Russell maintains that all the events that constitute a mind are also among the 'stuff' of matter, i.e. the brain. Accordingly these events are both mental and physical. In 'An Outline of Philosophy'[4], he recognises

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1. This idea has been expressed by Russell somewhat differently in The Analysis of Mind, p. 301.
2. Portraits from Memory, p. 148.
3. Ibid., p. 148.
4. Op. cit., p. 297.

two marked characteristics of a mind, one physical and the other psychological. First, it is connected with a body; secondly it has the "unity of one experience". From the point of view of the physical characteristic, "every mental event known to us is also part of the history of a living body, and we define a 'mind' as the group of mental events which form part of the history of a certain living body".[1] 'Mental events' are those "that are in a region combining sensitivity and the law of learned reactions to a marked degree".[2] This means that mental events have causal properties which include "knowledge-reactions" and "mnemic effects".[3]

> 'In the psychological way of defining a mind, it consists of all the mental events connected with a given mental event by "experience", i.e. by mnemic causation, ... we shall define the "experience" to which a given mental event belongs as all those mental events which can be reached from the given event by a mnemic causal chain, which may go backwards or forwards, or alternately first one and then the other. This may be conceived on the analogy of an engine shunting at a junction, or where there are many points: any line that can be reached, by however many shuntings, will count as part of the same experience.'[4]

Russell recognises[5] that all the mental events connected with one body may not be connected by links of mnemic causation with each other, so that the physical and the psychological definitions of mind may not amount to the same thing. This refers particularly to cases of 'multiple' personality where some

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1. An Outline of Philosophy, pp. 297-8.
2. Ibid., p. 296.
3. Ibid., p. 297.
4. Ibid., pp. 298-9.
5. Ibid., p. 299.

mental events are present in the life of one personality and absent in the life of the other. But both personalities may have mnemic connections with events which had occurred before the dissociation took place; and in that case there would be only one mind according to the present definition. There may be mental events in every cell of the body, and only a few of them, particularly those in the brain, may constitute the "central personality".[1] The "unconscious" may be the mental lives of subordinate parts of the body, having occasional mnemic effects upon the central mental life.[2] These are, of course, speculative possibilities, and Russell does not seem to take them seriously. Generally, he places the mental events, and therefore mind, in the brain.

Now, the important thing about the above definition is that mind has "the unity of one experience". This means that the mental events, i.e. sensations and images, which constitute a mind are so related to each other that they together make one whole 'system', one single structure, that has the property of realising itself as one experience. The relations that obtain among the events making up the unity of one experience are those of mnemic causation. Given any mental event at one moment, it has direct and indirect mnemic relations to many other mental events which are compresent with the given event. These events together with the given event make one whole experience which is the mind at the

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1. An Outline of Philosophy, pp. 297, 299.
2. Ibid., p. 299.

moment. All the sensations and images which make this momentary state of mind need not, and in fact are not, conscious.[1] The whole realises itself as one experience in being conscious in respect of some aspects of it. When, for example, I am perceiving a cat, a number of percepts and images are occurring in me of which the cat-percept is one. They are not all conscious; but they together constitute one experience which is 'me' at the moment, and which realises itself as such as being "cat perceptive".[2] The momentary state of a mind is then a group of causally connected events. This group is preceded and succeeded by similar groups of mental events which are causally connected with the events of the present group. We need not suppose that between any two successive groups there will be no numerically common events. On the contrary, between two successive groups, some events will be numerically the same, others will be numerically different but qualitatively similar. The two groups as groups will be different, although some events will be common.[3] Such successive groups of mental events constitute a series which extending over the life-time of an individual is his mind or biography. Every event is of a brief duration; but a series of groups of them has a sort of quasi-permanence.[4] The series which is a mind, like one which is a piece of matter, is a relatively persistent independent causal

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1. An Outline of Philosophy, pp. 213, 299-300; See above, p. 242.
2. An Inquiry into Meaning and Truth, p. 114.
3. See above, pp. 209-11.
4. See above, pp. 204, 207 ff.

line, or rather a complicated system of causal lines. This accounts for the quasi-permanence as well as the identity of one mind or person that consists in the semi-similarity of the events belonging to the different momentary states of a mind or person. Not all the events of a state or momentary group will be similar to all the events of any other state. There will be new accretions every now and then. But there will still be similar events between different states or momentary groups; and the closer the states in time, the greater will be the similarity.

Now, it will be noticed that in the above analysis of Russell's conception of mind I have made use of the account of quasi-permanence as I have given before.[1] I believe that quasi-permanence as applied to mind and person can only be conceived in this way; and I do not see how else we could account for the fact of our feeling or knowledge of continued existence from moment to moment. For, if my mind at one moment consists of events or experiences which are all numerically different from those forming my mind at the immediate earlier or later moment, it would never be possible for me at any moment to know that these momentary minds make one continuous series that is 'me' or my mind. Simple similarity between two or more discontinuous momentary complex experiences, each entirely succeeding or preceding another, would never give the knowledge of continuity; for there would be nothing in one momentary complex experience that would make it realise that

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1. See above, pp. 209 ff.

it has been preceded by a similar experience. It is only with relation to something known to be common between two successive complex states of mind that other elements can be known to be successive; and it is the knowledge of the common element with relation to successive elements that can give the knowledge of continuity. Thus the experience that gives us the knowledge of temporal sequence (i.e. Russell's 'specious present') should also be taken to give us the knowledge of continuity. Russell says that we can know in one experience one whole movement in which we can recognise an earlier and a later part. But the movement of one thing can be known only with relation to what does not move or what moves differently. If everything in our environment including ourselves were to move at a time at the same speed and in the same direction, we would not know any movement at all. Thus, for example, when I perceive the movement of one's arm, I can do so because other things which I simultaneously know do not move at all or move differently. This means that while I am perceiving the movement of the arm, some parts of this experience are present with my experience of certain things, and other parts of this experience with those of some other things. Thus the same experience is compresent with experiences that are not compresent with themselves. This gives me knowledge not only of temporal succession but also of continued existence from moment to moment. We have seen that, according to Russell, points and instants overlap. If I have the knowledge of continued existence, the instants of my life must overlap. But they can overlap only by containing common events as their constituents. I, therefore, conclude that

the series of groups of events which is my mind, is so constituted that the events of one momentary group do not change all at once but differently, so that any two successive groups contain events some of which are numerically the same, others being different but similar and still others being some new accretions. In this analysis of quasi-permanence of mind, as in that of matter, I am not using any new idea, but only putting together several of Russell's ideas. I am combining the idea of quasi-permanence with those of 'compresence' and 'overlapping' of instants in order to give an account of an obvious fact, namely our knowledge of continued existence from moment to moment, which seems otherwise inexplicable from Russellian point of view.

We have said that in the later stage of his philosophy Russell admits that in knowledge there is a distinction of subject and object. In this connection he seems to make a distinction between 'I' as a person and 'I' as a subject. It is a peculiar thing to notice that, although most of his books contain index lists of subjects (sometimes quite elaborate), none of them mentions 'person' or 'personality'. Even in the texts these words are used on a few occasions only. 'An Inquiry into Meaning and Truth'[1], and 'Human Knowledge'[2], have each a chapter on "egocentric particulars" such as I, now, this, that, etc. Here he tries to give some definitions of these terms without reference to the

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1. Chapter VII.
2. Part II, Chapter IV.

concept of 'person' as a simple thing. The discussions are carried on from rather an epistemological and linguistic point of view, but they imply the same metaphysical views as we have been discussing so far. We need not go into the details of these discussions. We may bring out the position in the following way.

Russell begins by taking 'this' as the basic term, and offers the following definitions:

" 'I' means 'The biography to which this belongs'; 'here' means 'The place of this'; 'now' means 'The time of this', and so on."[1]

He makes a distinction between 'I' and 'I-now' and 'I-then'. This distinction is the same as that which we have already discussed, namely the distinction of mind as the series of groups of sensations and images making a biography, and the momentary groups of sensations and images making momentary states of mind. Thus " 'I-now' denotes a set of occurrences, namely all those that are happening to me at the moment. 'This' denotes some of these occurrences."[2]

As regards 'this', Russell suggests that it could be used by a suitably designed machine;[3] and accordingly its use does not involve anything specifically mental. But this would not avoid the relation of a speaker to the object with which the word is concerned. In respect of the theory of knowledge the relation would be one of the subject and object of knowledge. 'This' would

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1. An Inquiry into Meaning and Truth, p. 108.
2. Ibid., p. 114; Human Knowledge, pp. 319, 322.
3. An Inquiry into Meaning and Truth, pp. 111 ff.

then mean "what I-now notice".[1] In 'Human Knowledge' Russell expresses this idea as follows:

> ' "I-now" denotes the complete complex of compresence which contains the present contents of my mind. "This" denotes whatever parts of this complex I am specially noticing.'[2]

Thus, according to Russell, 'I' as a person is the whole of my biography; 'I' as the subject is the 'I-now' or even a part of it. 'I-now' consists of all my present sensations and images making one total experience of which 'this' is a part. As 'I-now' notice 'this' which is the object, it follows that the subject-object relation is one of 'noticing' by the wnole (complex of compresence) of a part of it. But if we consider what Russell has said earlier[3], the relation is between the part 'this' (one or more sensations or images) and the rest of the complex that is my present momentary mind. On one view, the subject is the whole of 'I-now'; on the other, it is a part of 'I-now'. But on either view, the subject is a complex of sensations (or percepts) and images, and not a single simple thing or ego.

The subject or 'I-now' is a complete complex of compresence having a single structure composed of sensations and images; these include not only the 'external sensations of sight, touch, etc., but also organic sensations of various sorts, with the characteristic feelings of pain and pleasure, comfort and discomfort, as also the images of past sensations. Many of these are unconscious; only those upon which attention falls are conscious.

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1. An Inquiry into Meaning and Truth, p. 114.
2. Human Knowledge, p. 322.
3. An Outline of Philosophy, p. 221; see above, p. 233.

Russell says that 'this' is one occurrence (a percept or image) which is "specially noticed". But he admits that noticing or attention is a matter of degree. We need not, therefore, suppose that only one occurrence is noticed at one time. On the contrary, while one percept or image is specially noticed, some others may also be simultaneously noticed in various lesser degrees and are, therefore, conscious in various degrees; while still others are not noticed at all and as such are unconscious. It may be that the last group forms the greater part of the complete complex of compresence that is a mind at the moment. In so far as Russell admits that noticing is a matter of degree and that much of our mental life is unconscious, this analysis of the complex which is the 'I-now' seems quite reasonable. In any case, it will be improper to say that Russell includes only cognitive elements,[1] For Russell, no element is in itself cognitive; and even where cognition arises, it attaches only to some elements of the complex unity of experience that is a mind. The complex is not just an aggregate or 'bundle'; it is rather a highly integrated and organised whole, a single structure composed of causally related compresent events, and can be treated as a unit which has 'emergent properties'.

The subject-object relation, then, is between the whole (or part) of 'I-now' and a part 'this' which is specially noticed. Russell explains knowledge or consciousness with the help of the

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1. This rejects J. Laird's suggestion to the contrary. Cf. The Philosophy of Bertrand Russell, p. 301.

notion of 'noticing', which he does not define.[1] It may be an "emergent" property appearing in the complex structure that is a mind. In so far as Russell admits that mind is emergent,[2] there seems to be no difficulty in supposing that 'noticing' or 'attention' is an emergent property of mind.

Now, as a person I am the whole of my biography which is a series of groups of causally related events. Given any event 'this', 'I' may be defined as the whole biography to which 'this' belongs. But it is difficult, Russell admits, to give a definition of 'you' as distinct from 'I'. Here we have to take some inferred event, corresponding to 'this'; and 'you' can be defined as the biography to which the inferred event (a percept or image) belongs.

According to Russell, there is thus a distinction between 'I' as a person and 'I-now' and 'I-then' which are the momentary states of the person. The person persists for a certain period of time during which it retains a sort of identity of structure consisting in the similarity of events that compose it. Personal identity, according to Russell, is mainly a matter of memory. But if our analysis is correct, it must also involve the knowledge of continued existence from moment to moment. Moreover, personal identity involves the identity of the body.[3] As, according to Russell, the events that constitute a mind also constitute a brain, and as a mind is always known to be connected

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1. See above, pp. 242-4.

2. See below, p. 292.

3. A discussion of the criteria of personal identity may be found in B.A.O. Williams, 'Personal Identity and Individuation', Essays in Philosophical Psychology (D.F. Gustafson ed.).

with a body, the connection of personal identity with bodily identity is undeniable. His postulates of quasi-permanence and independent causal lines are supposed to account for the identity of both persons and non-living things. We have considered these before.[1] But the relation of mind and body, as conceived by Russell, is not one of logical necessity, but is only an empirical fact. We shall discuss this and some other points about the mind-body relation and the concept of a person in the following chapter.

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1. See above, pp. 204 ff.

CHAPTER VI

BODY, MIND AND PERSON.

According to Russell, mind and matter are, then, complexes composed of the same stuff, namely the neutral events. Minds and material things are each a 'single structure', an organised whole. Their difference lies in the two ways of grouping of events under the two kinds of causal laws, namely the psychological and the physical laws, which are not reducible to one another. Much that concerns the relation of mind and matter has already been considered above. There are, however, a few points that demand further consideration. These are some of the questions that have special reference to the mind-matter or mind-body situation which involves the concept of a person. In what follows these will be taken up in three separate sections.

1. Is Mind an Emergent from Matter?

We have referred to the question before. Russell considers this in connection with C.D. Broad's contention that mind is a material structure, but that it has emergent properties which cannot, even theoretically, be derived from those of its material constituents. Broad is an emergent materialist, and Russell refutes this position in 'An Outline of Philosophy'.[1]

Russell takes up the question in several parts. He asks:

> 'Is matter emergent from events? Is mind emergent from events? If the former, is mind emergent from matter, or even deducible from the properties of matter, or neither?

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1. Op. cit., pp. 293 ff.

> If the latter, is matter emergent from mind, or deducible from the properties of mind, or neither?'[1]

For the purpose of the consideration of these questions, Russell coins a word, 'chrono-geography', for the science which begins with events having space-time relations but does not assume at the outset that certain streams of them can be treated as persistent material units or as minds. The question now is whether the sciences of matter and mind are completely reducible to chrono-geography. As regards matter, Russell says that the present state of science does not offer a decided answer. In so far as physics has not yet been able to reduce the laws of electrons, protons, photon, quantum, etc., into the laws of chrono-geography, "for the present materiality is practically, though perhaps not theoretically, an emergent characteristic of certain groups of events,"[2]

As regards mind, Russell maintains that the insufficiency of our knowledge of psychology makes it difficult to speak intelligently. Nevertheless, the knowledge of events we have in psychology is very different from chrono-geography, and no amount of physics can give us the knowledge we have in psychology. Our knowledge of facts about mind "contains features of a qualitative sort which cannot be deduced from the merely mathematical features of the space-time events".[3] Russell concludes that mind is emergent from events.

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1. Ibid., p. 294.
2. An Outline of Philosophy, p. 295.
3. Ibid., p. 295.

Coming to the question as to whether mind is an emergent from matter, Russell answers in the negative and thus rejects emergent materialism.[1] The argument is based on that of the two ways of grouping of events into mind and matter and the definition of mind that follows from this. In a passage already quoted Russell maintains that even if a mind consists of all the events in a brain, the psychological and the physical ways of grouping of events are still different.[2] He also holds that events might fall under either group without falling under the other.[3] This is also connected with the irreducibility of the two kinds of causal laws into one another. Even if mnemic causation is not ultimate, there would still be knowledge in psychology which could never form part of physics.

In this connection Russell also mentions that it is possible to maintain that matter is emergent from mind.[4] From a phenomenalistic point of view, matter could be constructed out of percepts and auxiliary concepts, derived from percepts and assumed to have no reality but introduced to simplify the laws of percepts. But although he recognises some merits of such a theory, he in fact rejects it. Thus he maintains that both mind and matter are emergents from events, but neither is an emergent from the other.

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1. An Outline of Philosophy, p. 300.
2. See above, pp. 278-9.
3. Portraits from Memory, p. 149; See below, pp. 297-8.
4. An Outline of Philosophy, p. 301.

So, Russell's theory at the later stage turns out to be a kind of 'emergent neutral monism'; but not emergent materialism or emergent mentalism. Both mind and matter are emergent. Mentality and materiality are emergent properties belonging to differently arranged groups of events, but not to single events. Events in themselves are neither mental nor physical, but neutral.

The acceptance of the concept of 'emergence' is a very significant step in Russell's philosophy and needs emphasising. Without it his analytic philosophy would have remained incomplete in a very important sense. So long as he did not accept this concept, the model of philosophical explanation for him was that of the physicist's analysis of water into oxygen and hydrogen.[1] He then thought that the hydrolysis of water was all that was there to be done to explain water. He thought that the properties of the complex could be inferred from those of the parts.[2] But as Allan Wood remarks, a physicist is obviously wrong if he thinks that, after carrying out the hydrolysis of water, he can still get a cooling drink from the products of his analysis.[3] Now, it is true that oxygen and hydrogen into which water is analysed do not separately give the cooling drink. Yet it remains a scientific fact that the cooling drink which is water is not anything over and above oxygen and hydrogen, -- there is no third element, a cooling ingredient or substance in it, -- but only oxygen and

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1. For example, The Analysis of Matter, pp. 284 ff.
2. Ibid., p. 286.
3. My Philosophical Development, p. 271.

hydrogen in a certain proportion combined in a certain way. 'Being a cooling drink' is not a substance, element or ingredient; it is only a property. But it is not a property of oxygen or of hydrogen. This could not be deduced from or reduced to the properties of oxygen and hydrogen. Yet it does not exist independently of oxygen and hydrogen. It arises as a quality of a certain combination of the two elements. It is thus an 'emergent' property. So long as this is not recognised, the physicist's statement remains incomplete. In the same manner, analytic philosophy remains incomplete so long as it is thought that the analysis of a complex into its elements is all that is to be done. This of course gives important knowledge, but not the whole knowledge. Thus the analysis of mind and matter into particulars or events does not give all knowledge about them. It only shows that there is no further elements or substance called mind or matter. But this does not complete the picture: there always remains the question as to how we get the properties of the complexes from those of the parts. As for example, in the particular case of mind, it remains a problem as to how sensations and images which are in themselves non-cognitive can give cognition or consciousness in certain combinations of them. So long as it is maintained that consciousness or cognition as a property of groups can be inferred from the properties of the constituents, it is imperative that the inference be demonstrated. But this is not possible; at any rate Russell did not do so. And in the absense of it, it was possible to say that his explanation was incomplete and that it could not give a satisfactory account of mind and matter. But the accept-

ance of the concept of 'emergence' affords a sort of theoretical completeness to his philosophy. The properties of complexes are not now inferrable from the properties of the constituent elements; they are emergent properties arising in certain groups of elements. Thus 'consciousness', 'noticing', etc., in short mentality and materiality, are now 'emergent' properties not reducible to or inferrable from those of events. This, however, does not involve the introduction of any new element or substance over and above sensations (or percepts), images and unperceived events, which still remain the neutral constituents of the world. Thus, Russell's philosophy as it takes the form of 'emergent neutralism' attains a greater plausibility and completeness than it had in its earlier form.

2. Mind-Body Relation: The Identity Hypothesis.

In this connection what needs special consideration here is the relation of mind and brain. Their difference, according to Russell, consists not in the raw material of which they are composed, but in the manner of grouping. We have seen how he constructs the matter of the brain out of percepts and images.[1] In fact all our experiences, according to this view, are parts of the stuff of the brain. So he says that "the events that make a living brain are actually identical with those that make the corresponding mind."[2]

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1. See above, pp. 191-2.

2. Portraits from Memory, p. 147.

Thus the connection between brain and mind is obvious. Corresponding to every mental event there is "some physical modifying of the brain, and mental life must be connected with physical properties of the brain tissue".[1] For, it is the same event that is at once a constituent of both the mind and the brain. As a part of the structure of the brain it is related to other parts according to physical causal laws; as a constituent of the mind it is related to other events in the brain according to the laws of psychology. Russell says,

> 'An event is not rendered either mental or material by any intrinsic quality, but only by its causal relations. It is perfectly possible for an event to have both the causal relations characteristic of physics and those characteristic of psychology. In that case, the event is both mental and material at once. There is no more difficulty about this than there is about a man being at once a baker and a father.'[2]

Thus the same events can be, and in fact are, constituents of a brain and a mind. Every mental event is also a brain event. But Russell does not think that this justifies the statement that there can be no such thing as "disembodied mind". He says:

> 'There would be disembodied mind if there were groups of events connected according to the laws of psychology, but not according to the laws of physics. We readily believe that dead matter consists of groups of events arranged according to the laws of physics, but not according to the laws of psychology. And there seems no a priori reason why the opposite should not occur. We can say we have no empirical evidence of it, but more than this we cannot say.'[3]

This confirms the statement we made earlier, namely that events may fall under either group without falling under the

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1. Portraits from Memory, p. 148.
2. Ibid., pp. 152-3.
3. Ibid., p. 149.

other also. This means that the relation of mind and body is only contingent. It is an empirical fact, but not of the nature of logical necessity. Events may or may not fall under both the groups at once. But as far as our knowledge goes, we always find a mental group connected with a brain. This idea is maintained by Russell not only in the above passage, it has been implied in his earlier works as well, particularly in 'An Outline of Philosophy'. In that book he qualifies his statement about the connection of body and mind with the phrase"known to us"[1], suggesting thereby the idea that we find here. His denial of the emergence of mind from matter may be taken to support it. Thus, for him, the statement that "the events that make a living brain are actually identical with those that make the corresponding mind" is as much contingent as the statement that "a man who is a baker is also a father".

Russell maintains that the old problem of the relations of mind and matter, and of the dependence of mind on brain or of brain on mind, arises through mistakenly treating them as simple things. But if they are treated, as he suggests, as groups of events, the"whole problem vanishes".[2]

It will have been noticed that as regards the relation of mind and brain Russell is maintaining a theory which in a somewhat modified form has, of late, come to be known as 'the

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1. An Outline of Philosophy, p. 297.
2. Portraits from Memory, p. 153.

Identity Theory', and has a good number of advocates now-a-days. Russell does not call his theory by this name; nevertheless he uses the expression "identical with" in the passage quoted above.

John Beloff recognises[1] that Russell has maintained the identity theory in 'Portraits from Memory' (1956) and 'My Philosophical Development' (1959). But we have found[2] that he has in fact been maintaining the same theory since 1927 when he published 'The Analysis of Matter' and 'An Outline of Philosophy' wherein he constructed the matter of the brain out of our experiences, that is, percepts and images. Even on Beloff's showing, i.e. the bibliography he offers[3], Russell appears to be the earliest exponent of the theory. My point is that the identity theory is not in fact as recent as it is supposed to be; it is, in one form, as old as Russell's complete neutral monism.

There are, however, important differences between Russell's identity theory and other versions of it. According to these other versions, mind and brain are one and the same, -- i.e. mental states are identical with brain-states. This has been held by, among others, H. Feigl,[4] U.T. Place,[5] J.J.C. Smart[6] and A. Quinton[7].

1. J. Beloff, 'The Identity Hypothesis: a Critique', Brain and Mind (J.R. Smythies, ed.), p. 37 foot-note.
2. See above, pp. 189-90, 191-4.
3. J. Beloff, op. cit., pp. 37 foot-note, 38 foot-note.
4. Op. cit.
5. 'Is Consciousness a Brain Process?', British Journal of Psychology, 1956.
6. Philosophy and Scientific Realism; also 'Sensations and Brain Processes', The Philosophy of Mind (V.C. Chappel ed.).
7. Op. cit.

The world, according to them, consists of only one kind of entities, namely physical events, some of which can be referred to by both mental and physical expressions. Now, one fundamental point of difference is that for Russell events in themselves are neutral, whereas for others they are all physical. Another important difference is that according to Russell mind and body, or mental states and brain states, as such are not identical, the identity being of the events composing them under different arrangements; whereas according to others mind and body, or mental states and brain states, are identical. A third point of difference concerns the question of disembodied mind. In Russell's view, this is logically possible, but according to others this is not. While Russell is a neutral monist, others are physicalists or materialists.

In view of the above, we can call Russell's theory a 'theory of identity of the constituents of mind and brain', but we cannot call it a 'mind-body identity theory'.

The identity theory as Russell propounds it has certain advantages over the theory of others. Some objections which are perhaps rightly made against the latter are not effective against the former. For example, Russell's position does not involve the sort of category mistakes that James Cornman mentions. Cornman says that the acceptance of the identity theory will force us into applying expressions like nagging, fading, false, true, etc., to physical processes, and such expressions as physical, swift, hard, etc., to mental processes. But this means attributing predicates, appropriate to one logical category, to expressions belonging to a

different category; and this is a conceptual mistake.[1] As G.N.A. Vesey[2] points out, the theory involves a "mixed-category" identity; the identity is not that of one physical thing apprehended in two different ways, or of a mind or anything else apprehended in two different ways, but of mental states with brain states. Vesey points out that the exponents of the theory do not supply the criteria of the identity. Now, Russell's position does not seem to suffer from these difficulties. In so far as mind and brain are different, there is no necessity of confusing the predicates belonging to different logical categories, namely mental and physical. Moreover, the identity is not that of a mental thing with a physical thing, but of the same neutral events arranged in two different ways.

One objection to the modern physicalist or materialist identity theory is raised from the standpoint of 'parapsychology'.[3] Russell, of course, does not discuss the problem of parapsychology; and recent investigations in this field have not yet been able to offer any decided opinion on the subject. It seems, however, clear that paranormal cases like telepathy, clairvoyance, etc., are an obstacle in the way of reducing the mental to the physical, the psychological causation to physical causation. But Russell's position does not seem to be affected by this. We have seen that for him the two types of causation are irreducible, and that a

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1. J. Cornman, 'The Identity of Mind and Body', Journal of Philosophy, Vol. 59 (1962), pp. 490-1.
2. The Embodied Mind, p. 39.
3. J. Beloff, op. cit., pp. 50 ff.

disembodied mind is logically possible. These ideas may be flexible enough to accommodate paranormal cases in his neutral monistic philosophy.

There are further difficulties involved in the physicalist identity theory; and it is doubtful if a mind-body or mind-matter identity can be consistently maintained from the physicalist or materialist point of view. There is an ambiguity in the conception of the physicalist identity theory. The theory may be said to make two main assertions: The first statement is to the effect that mind is identical with the brain or that mental states or events are identical with brain states or events which are physical. Here the mental and the physical are at par, i.e. of equal status, with one another; as terms of a relation of identity they stand on equal footings, they are, in other words, co-ordinate concepts or categories. The second statement is that all states of affairs or events are physical, that what is called mental (or what mental state expressions stand for) is only physical, for the physical is the only reality and the only real category. Here the mental does not stand on the same or equal footing with the physical as it does in the first statement. These two statements are not thus compatible with one another. Yet in the physicalist theory they are put together; and thus put, they involve the logical fallacy of 'equivocation'. This can be brought out in terms of the typical analogical illustration that the supporters of the theory use. "The Evening star and the Morning star are one and the same thing". This seems all right. But the difficulty arises if it is asserted in the same breath that what is there is only the Evening star (or

only the Morning star). In the first statement Morning star stands as having an equal status with the Evening star; but in the second it does not; and hence the fallacy.

Thus to talk of mind-body or mind-matter identity and to talk of physicalism or materialism at the same time involve a conceptual confusion. According to the physicalist identity theory, some entities of the world can be referred to by two kinds of statements, namely the mental state statements and brain state statements. There are therefore two sets of statements or propotions; and there is a one-one correlation between them such that for every proposition in one set we have a proposition in the other set. The correlation or co-ordination is established through the fact of their reference to a set of common objects. Thus, for example, two propositions, say P and Q, refer to one and the same object. P and Q become correlated or co-ordinated through the fact of their reference to the common object. So there is an identity of the object of reference of the two propositions. But the difficulty arises from the further assertion that the object referred to is in fact appropriate only to P and not to Q. The physicalist identity theory asserts that there is a correlation between mental state statements and brain or physical state statements, and that they are co-ordinated through the common object to which they refer. But it declares at the same time that the common object is in fact a brain state, a physical object, and thereby gives supremacy to the physical side. The two co-ordinate sets of statements are no more co-ordinate, and hence the fallacy we have mentioned. In fact, according to this

theory, one set, one side of the relation of co-ordination, or in other words one term of the relation of identity, 'disappears'. The relation of mind-body identity is conceived to be "the sort of relation which obtains between ..... existent entities and non-existent entities".[1] But if this is true, if one term of the relation is non-existent, there simply is no relation, no case for identity. It is difficult to see how a 'non-existent entity' is a term of a relation. If there is only one term, to talk of a relation is to talk non-sense.

It does not therefore seem possible to maintain mind-body or mind-matter identity and physicalism at the same time.[2] For, if identity is true, mind and matter, the mental and the physical, must stand equal in status; and if physicalism is true, they cannot. For the same reasons, identity is not possible to maintain from a mentalistic or idealistic position.

It seems to follow that the identity theory is not compatible with either physicalism or mentalism. In this respect, neutral monism is in a better position. It is able to assert a sort of identity of events constituting mind and brain. This is possible

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1. R. Rorty, 'Mind-Body Identity, Privacy, and Categories', Philosophy of Mind (S. Hampshire ed.), p. 33.

2. The arguments here do not seem to apply to the Identity Hypothesis produced by R.J. Hirst in The Problems of Perception, pp. 191 ff., in so far as he recognises two aspects (mental and physical) of the same "whole event", or whole situation which he thinks can be referred to in a "neutral way". Our concern has been only to argue against the physicalist form of Identity Hypothesis.

because neutral monism does not subsume or subordinate one of mind and matter under the other, because it gives equal status to both of them. The identity it asserts is not that of mind and brain as such, but of the constituent events grouped in two different ways. Thus the identity theory in its neutral monistic form seems to be more intelligible than it is in its physicalist form.

We have seen that the identity theory as propounded by Russell avoids certain objections that are usually raised against the theory in its physicalist form. And if what we have said above is correct, it seems to follow that the theory in its form as an aspect of neutral monism as we find in Russell's philosophy stands a better chance of being true than it does in its physicalist or materialist form. In this form, the theory, we have found, is as old as Russell's complete neutral monism.

3. The Concept of a Person.

We already referred to the concept of a person while discussing the distinction of the subject and the object of knowledge.[1] In a broad sense, 'Person' does not mean a mind alone or a body alone. It stands for an individual human being who is said to have both a mind and a body; perhaps more properly speaking, it is the characteristic of a person in this sense that it possesses various

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1. See above, pp. 285ff.

physical properties as well as different forms of consciousness.

The problems concerning the concept of a person are mainly those of the relation of mind and body, or the mental and the physical. Russell's neutral monism is an attempt at a solution of the mind-body problems that arise out of the dualistic conception of a person as a combination of a mind and a body. But there is a special problem connected with the question of the mind-body relation. This is the problem of personal identity, and it can be variously formulated from different standpoints. It may, therefore, be well to rehearse Russell's conception of a person and to consider if it explains the relevant problems of personal identity. This discussion seems important particularly in view of some recent views of the concept of a person,[1] which seems to oppose the idea that the concept of a person admits of analysis.

The various forms of the problem of personal identity may be summed up as follows.[2] Any dualistic view, Cartesian or non-Cartesian, has to produce an account of the way in which a mind is lodged in a body. It must explain if there could be more than one mind in one body, if the same mind could be in different bodies at the same or different times, and how it is decided which mind goes with which body. If the mind-body relation is one of causal connection, this connection itself must be explained. Again, if a

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1. The reference is to the views developed by P.F. Strawson in his book 'Individuals'.
2. A.J. Ayer, The Concept of a Person and Other Essays, p. 84.

mind is a substance, there is a question about how it is identified. On the other hand, if it is a collection of experiences, there is the problem of how the collection is formed, -- a problem to which Hume himself confessed perplexity and defeat. On such a view, there is the further problem of identifying the experiences themselves; we ordinarily identify experiences in terms of the persons whose experiences they are; but if we are to analyse and define persons in terms of experiences, there is then an apparent vicious circle.

We have to ask: Does Russell's neutral monism suffer from these problems, or does it explain them? Now, we have seen that Russell defines a person as a 'biography'. A person, on his view, cannot be regarded as a 'compound' of two separate entities; nor can it be regarded as the compound or product of two sets of separate entities. The constituents of a mind are also the constituents of a body (i.e. the brain); there is thus an identity of the 'stuff' with a difference of arrangements. We can, of course, talk of a mind as a complex set of entities (events) forming a biography, and of a body as a complex set of entities (events) forming also a biography. We may also call the former a 'mental biography' and the latter a 'physical biography'. But we cannot say that a person is a sum-total of two sets of separate entities. The two sets are in fact composed of the same neutral entities. There is only one collection of entities; all of them in one arrangement form the body, and some of them fall also under a different arrangement and make the mind. Thus, a person in the broad sense is a 'complex biography' consisting of all the events that make a complex mind-body situation.

It may have been clear from our discussions so far that Russell's answer to the problems of how a mind is lodged in a body and how they are related lies in his contention that the mind of a person consists of the events which are among the constituents of his brain. There seems, therefore, no difficulty in deciding which mind goes with which body. The mind that goes with a body is the one that is constituted by the same events which (together with others) constitute that part of the body which is called the brain; and conversely, the body that goes with a mind is the one which has a brain composed, partially at least, of the events which constitute the mind. This shows that one mind cannot be in more than one body at the same time, in as much as one brain cannot be in more than one body at the same time. The question whether there can be more than one mind in one body is the same as the question whether there can be more than one brain in one body. We have already discussed how he explains the connection of events that form a mind. Each momentary total state of a mind is what he calls a 'complete complex of compresence' which has a 'single structure' and a 'unity of experience' consisting of events (sensations and images) connected by the relations of psychological causation. The series of such momentary states forming the mind or mental biography of a person (like the series of momentary states forming one physical thing or body) is explained by the notions of 'quasi-permanence' and the 'intrinsic causal laws' of spatio-temporal and structural continuity of separable causal lines.

The relation of one particular mind and one particular brain follows from the way in which Russell constructs mind and matter.

The events that make one mind at one time are all compresent. They are in one region of space-time. The events that are in one particular region of space-time can be constituents of that piece of matter only which is at that region of space-time, and in this case, the particular piece of matter is a brain.

Thus far, the position seems to be one of a very clear and strong connection between mind and body (brain), yielding a straightforward criterion of personal identity. But the situation becomes confused if we take into consideration Russell's suggestion of the logical possibility of 'disembodied minds', which tends to reduce the mind-body relation to an empirical fact, or at best to an empirical necessity. Although this suggestion comes out openly at a very late stage in the history of Russell's thought, this could, as we said, be connected with his earlier views given particularly in 'An Outline of Philosophy'. But there is scope for alternative interpretations of his definition of mind as given in that book. We have seen[1] that he offers therein a physical and a psychological definition of mind and mental events, and combines them to give a complete picture of the case. We quoted him saying that from the point of view of the physical characteristics of mind and mental events, "every mental event known to us is also part of the history of a living body, and we define a 'mind' as the group of mental events which form part of the history of a certain body."[2]

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1. See above, pp. 280f.
2. See above, p. 280.

Now, interpreted literally with emphasis on the expression "part of the history of a certain living body", this definition should mean a logical connection between a particular mind and a particular body, and this would hardly leave a scope for a 'disembodied mind'. But if the expression "known to us" as it occurs in this definition is emphasised, it would then be consistent with a 'disembodied mind', but the logical character of the definition and the logical criteria of personal identity would suffer a weakness. Thus, if we favour and emphasise the stronger interpretation, the introduction of the possibility of a 'disembodied mind', might be supposed to constitute a sort of inconsistency in Russell's thought in so far as the personal identity criteria are concerned.

But we need not perhaps take Russell's admission of the mere logical possibility of a 'disembodied mind' too seriously or even too literally. His intention seems only to be that he does not like to shut the conceivability of grouping of events according to psychological laws only. He only points out that there is no logical impossibility in thinking that events may fall into groups under psychological laws alone without falling under physical laws, just as it is not only logically possible but actually the case that events often fall into groups under physical laws alone forming physical objects including pieces of matter. But at a place where events fall under both kinds of laws they form one particular body and one particular mind. He does not discuss at all what would be the nature of the so-called 'disembodied mind', and he emphasises that we have no evidence that there are such things. And we must remark that it seems hardly possible to call such groups, if any,

'minds' in the same sense in which Russell generally speaks of minds of persons as explained above. Of the two ways of defining a mind, one, viz., the physical way, would not apply to them at all, but this is an essential part of Russell's definition of minds of persons. Accordingly, 'mind' as applied to these supposed groups of events would be a 'misnomer' in the context of his neutral monistic thought. Taking into consideration the general trend of his approach to the problem of mind-body relation, I should think that the expression "disembodied mind" should always be used within inverted commas to indicate its fundamental difference from the concept of mind as applied to persons.

We may, then, take Russell as advocating strongly that one particular mind is connected with one particular body (or brain) and that one mind cannot be in more than one body 'at the same time'. The last qualification seems important in view of the present day sensational achievements in 'transplant' surgery, which seem to make it logically possible that the brain of one person may be transplanted into the body of another. Now, as the mind of a person, according to Russell, is constituted by the events which also constitute his brain, a 'brain-transplant' would also be a 'mind-transplant'. If, for example, John's brain were transplanted into the body (head) of Albert, Albert's body would then have not only John's brain, but also John's mind, i.e. John's memories, mental habits, skills, etc. There is, of course, the possibility that, as a result of the 'transplant', 'Albert', with his new brain may have a complete amnesia. But this is not the standard case under consideration. The standard case would be one in which after the

successful operation 'Albert' had a past. Now, such a case is possible within the framework of Russell's theory; and it would be in a sense a test case for the idea that the constituents of the mind of a person are also the constituents of his brain. If after the transplant of John's brain into Albert's body, 'Albert' had a past and if this past did not fit with John's past life but with Albert's own past life, the theory would be definitely disproved. If, on the other hand, 'Albert' had, after the transplant, a past which fitted completely with the past life of John, the theory would have some support from the case. Of course, this supposed case would lend support not only to Russell's theory in particular but also to other theories of mind-brain identity or correlation. Now, the Cartesian sort of mind-brain correlation has lost favour with most philosophers now-a-days; and we have seen in the last section that an identity theory from a physicalist or a mentalist point of view is not logically tenable. So, once these other theories have been rejected on other grounds, there would remain only the neutralist identity theory (such as Russell's) to be either supported or disproved by the supposed transplant cases. Until it is decided either way, it seems not unreasonable to suppose that the theory may be true.

The case of 'transplant' or interchange of 'brain and mind' would, however, raise certain problems of personal identity. It would be a question whether after the transplant of John's brain/mind into Albert's body we should regard the person now with Albert's body and John's brain/mind as the same person as Albert (or John) had been before the operation. As, in this case, there would

apparently be no outward difference in the body of Albert, there would be a motive for regarding this person as the same Albert with memories, mental habits, skills, etc. like those as John used to have. But let us suppose that the surgeons find it easier to transplant the head with the entire face and neck than to transplant the brain alone. In this case, the temptation may be to the reverse of the former case. I should remark that I mention these cases only to point out the sort of difficulties that would arise from these cases, and not to offer a definite solution of them. But Russell's position seems clear. He thinks that even in ordinary cases a person at two different times is not just the same; his identity consists not in the numerical identity of the constituents but in what he calls quasi-permanence and spatio-temporal and structural continuity. As the complex mind-body situation, i.e. the complex personal structure after the 'transplant' would be so very different from the one before it, Russell would perhaps suggest a re-christening of the person with a newly transplanted brain/mind or head/mind.

The possibility of these 'transplant' cases has to be distinguished from certain other possibilities which would fall under parapsychology. It may be supposed that someone, say David, undergoes sudden and violent change of character, that he claims to remember witnessing certain events and doing certain actions which he previously did not claim to remember, that he cannot now remember witnessing certain events and doing certain actions which he previously did remember, and that he now shows skills and habits which he previously did not possess. On scrutiny it may be found

that the memories, habits, skills, etc. which he now has, all point to the life history of some one person in the past, say Dr. Johnson. This obviously does not involve anything like a 'transplant' case. The question is: could we possibly regard it as a change of the mind of the person and a change of personal identity? i.e. could we say that David had now Dr. Johnson's mind or that he was now Dr. Johnson?

This and similar other possible cases have been elaborately discussed by B.A.O. Williams in his article referred to above.[1] We need only to point out that this case is logically of a different kind from the 'transplant' cases which we have discussed above. The fundamental difference seems to lie in this: In the surgical case one brain/mind can be transplanted at one time into one body only. But the position is not the same in the para-normal case. If it is logically possible that David should undergo the changes described above, it is also logically possible that another man, say Robert, should simultaneously undergo the same changes.[2] This means that both David and Robert should at the same time have memories, skills, habits, etc. like those of Dr. Johnson. But we cannot say that the same mind (Dr. Johnson's mind) is at once in two different bodies, or that David and Robert are both Dr. Johnson. Therefore, the best description of David and Robert in their new conditions would be that they both had somehow become like

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1. B.A.O. Williams, 'Personal Identity and Individuation', Essays in Philosophical Psychology (D.F. Gustafson ed.).

2. Ibid, p. 341 f.

Dr. Johnson, that they somehow knew all about him.[1]

We must note that the possibility of such changes arise from what is called clairvoyance. The only possible way to account for these changes is to suppose that David and Robert have come to know clairvoyantly all about Dr. Johnson, and that this new knowledge has been so obsessive that they have forgotten their own past life. This forgetfulness may last for the rest of their lives, but it can always be supposed that they may be cured of that; and it is only natural that they would be put under psychiatric treatment. But in the transplant case, one would not possibly think of psychiatric treatment of the person having a new brain/mind.

We may thus regard these cases as para-psychological involving clairvoyance. We have already observed that, as Russell accepts the irreducibility of psychological causation, his theory is not necessarily repudiated by para-psychology. Russell maintains that all our knowledge and experience consists of events in the brain. So, if a person has clairvoyant or telepathic knowledge, such knowledge would consist of events which would be among the constituents of his brain also. Para-psychology is not yet decisive; but there is nothing in it which proves that para-normal cases do not require the functioning of a brain or do not involve events in the brain.[2]

Now, on Russell's view, the concept of a person may be said to be derivative in the sense that it can be analysed in terms of simpler elements. Russell shares this idea with many others, the

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1. B.A.O. Williams, 'Personal Identity and Individuation', Essays in Philosophical Psychology (D.F. Gustafson ed.), p. 333.
2. Cf. R.J. Hirst, The Problems of Perception, p. 207.

difference lying in their conception of the nature of the simpler elements and the manner of their combination. For him, these are the neutral entities which are events; and those among them which, besides being constituents of the body, are also the constituents of the mind are known as sensations (or percepts) and images. This might be supposed to invite the problem of identifying the events which are the constituents of persons. It is in connection with the question of the identification of persons and whatever may be thought of as being their constituents that the concept of a person as derivative has, of late, been questioned. In his book called 'Individuals', P.F. Strawson claims that the concept of a person is a primitive concept,[1] and by this he means that it is not analysable in terms of such elements as mind and body or sets of simpler elements, one of which is the subject of consciousness and the other is the subject of physical properties. He holds that the subject to which we ascribe states of consciousness is literally identical with that to which we also ascribe physical properties. If we ask what this subject is, the only correct answer is that it is just a person.

Now, Strawson's theory of persons, if it is true, would solve many of the difficulties of the mind-body problem. Its importance with reference to Russell's position lies in that it might be considered as forming a basis of criticism of the latter. So, a comparative study of them would be instructive and could form the

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1. Strawson first produced this idea in an article on 'Persons' which appeared in the Minnesota Studies in the Philosophy of Science, Vol. II, 1958 (H. Feigl & Others ed), and then revised and elaborated it in the book 'Individuals'. My references are therefore to the pages of the latter.

subject-matter of an independent research project. For obvious reasons we cannot undertake here a fullscale study of this nature; nor can we produce an overall review of Strawson's position. We shall, therefore, consider below some of his claims in order to see if these can be accepted as tenable, and if his position can really be said to over-rule Russell's neutral monism.

Strawson's discussions on the concept of a person are fundamentally based on his views on the notion of the identification of particulars and a classification of particulars on the basis of this. In his own words, "In the discussion of this topic, the notion of identification of particulars is once more crucial: primarily in the sense of distinguishing one particular from others in thought, or observation; but also in the original speaker-hearer senses."[1]

Strawson first introduces the notion of the identification of particulars in the context of a speaker-hearer situation, and then extends it to cover the identification of particulars in thought, i.e. to cover the cases where the thinker picks out a particular for himself. He discusses "the conceptual scheme in terms of which we think about particular things".[2] He does not define particulars; but for him, sense-data, states of consciousness, physical particles like electrons and protons, things like chairs and tables, events like bangs, flashes, the last smile of my beloved and the battle of Waterloo, and persons are all particulars. We can identify them directly or indirectly by means of proper names, demonstrative

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1. P.F. Strawson, Individuals, p. 87.
2. Ibid., p. 15.

pronouns and descriptions. "That it should be possible to identify particulars of a given type seems a necessary condition of the inclusion of that type in our ontology."[1] The idea is that what 'exists' is directly or indirectly identified or located in space-time. Some particulars are systematically identified indirectly through their relations to particulars of some other type which are directly identified. There is thus a distinction of dependent and independent identification of particulars; and this forms the basis of an order of ontological priority and posteriority. Strawson's fundamental aim is to find, on the basis of this distinction, if there are types of particulars which are basic among the types of particulars which we include in our conceptual scheme.

We identify particulars indirectly by means of definite descriptions. If necessary we multiply the descriptions till we arrive at the level of material bodies which fall within the speaker-hearer situation, where we necessarily succeed. This makes material bodies 'basic' among particulars. The argument is this: one of the fundamental requirements of our method of identification is that there is a unique and unified spatio-temporal system with ourselves as the point of origin.[2] For Strawson, it is the one single spatio-temporal structure that is the framework of our actual thought of particulars; and the only category of

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1. P.F. Strawson, Individuals, p. 16.
2. Ibid., pp. 29 f.

particulars which can build up this framework are three-dimensional objects which persist in time, that is material bodies and things possessing material bodies.[1] It is because we can recognise a category of material objects that we can have the spatio-temporal system for identification and re-identification of all kinds of particulars. Private particulars (i.e. experiences) and the particles of physics are only dependently identifiable as the experiences of this or that person, and as the physical constituents of (or as the particles explaining some observable phenomena related to) this or that material body, and as such cannot be regarded as basic particulars.[2] Material bodies are thus basic in our particular identification; and Strawson regards it as a necessary truth that in an all-inclusive world of spatio-temporal relations material bodies should be so. He therefore concludes that, in our conceptual scheme as it is, "things that are, or possess, material bodies must be the basic particulars".[3] As persons are things that possess material bodies,[4] it follows that material bodies and persons are the basic particulars.

Strawson declares that basic particulars are "ontologically prior" to other types of particulars.[5] By this, he says,[6] he does not claim any sort of existential priority for them to others.

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1. P.F. Strawson, Individuals, p. 39.
2. Ibid., pp. 41 f.
3. Ibid., p. 39.
4. Ibid., p. 58.
5. Ibid., p. 59.
6. Ibid., p. 59.

And yet inconsistently enough he claims in the closing paragraph of his book that he has "found some reason in the idea that persons and material bodies are what primarily exist".[1]

It is on the basis of this general theory of the identification of particulars that Strawson claims that the concept of a person is a primitive concept. Persons are not only basic particulars and are therefore 'ontologically prior', but they are also primary concepts and "logically prior",[2] to the concept of mind or experiences. By primitiveness of the concept of a person, he means "that it is not to be analysed in a certain way or ways. We are not, for example, to think of it as a secondary kind of entity in relation to two primary kinds, viz., a particular consciousness and a particular human body."[3]

Strawson rejects Cartesian dualism according to which states of consciousness and physical characteristics are appropriately ascribed to two different subjects. He argues that as experiences are only contingently related to bodies, we never can, on Cartesian view, have adequate means of identifying persons. "One can ascribe states of consciousness to oneself only if one can ascribe them to others. One can ascribe them to others only if one can identify other subjects of experience. And one cannot identify others if one can identify them only as subjects of experience, possessors of states of consciousness."[4] He argues that it becomes impossible

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1. P.F. Strawson, Individuals, p. 59.
2. Ibid., p. 103.
3. Ibid., pp. 104-5.
4. Ibid., p. 100.

to have the idea of different, distinguishable and identifiable subjects of experiences, if this idea is to be regarded as a primary idea. "So the concept of the pure individual consciousness -- the pure ego -- is a concept that cannot exist; or, at least cannot exist as a primary concept in terms of which the concept of a person can be explained or analysed. It can exist only, if at all, as a secondary, non-primitive concept which itself is to be explained, analysed, in terms of the concept of a person."[1]

Strawson also rejects what he calls the 'no-ownership' or 'no-subject' theory of the self, and tentatively attributes to Schlick and Wittgenstein.[2] According to this theory, states of consciousness do not in fact have any subjects; but there is only the contingent fact that different sets of experiences are causally dependent on different bodies. Strawson's objection to this theory is that it is incoherent, because it cannot be stated without presupposing the proposition which the theory proposes to deny. It cannot explain and identify what set of experiences are mine. If the answer is that they are just those experiences which are causally dependent on my body, the proposition that all my experiences are causally dependent upon this body becomes analytic; but according to the theory it should be contingent. Again, if the answer is that they are 'my' experiences, it then re-introduces the notion of ownership which the theory proposes to deny.

Strawson argues[3] that the no-ownership theory is wrong in

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1. P.F. Strawson, Individuals, pp. 102-3.
2. Ibid., pp. 95 f.
3. Ibid., pp. 97-8.

denying what prima facie is the case: that is, that one does genuinely ascribe states of consciousness to something, viz., oneself. Experiences or states of consciousness are genuinely owned by the persons whose experiences they are; and this is a "logically non-transferable kind of ownership"[1] which has a definite place in our conceptual scheme. For if we think of the requirements of identifying reference to particular experiences, "we see that such particulars cannot be thus identifyingly referred to except as the states or experiences of some identified person. States, or experiences, one might say, owe their identity as particulars to the identity of the person whose states or experiences they are".[2]

Strawson holds that, in order to free ourselves from the difficulties of these theories, we have to acknowledge the primitiveness of the concept of a person, that is to recognise the concept of an entity such that both predicates ascribing states of consciousness and predicates ascribing physical characteristics are equally applicable to it. He says that it is a necessary condition of states of consciousness being ascribed at all that "they should be ascribed to the very same things as certain corporeal characteristics, a certain physical situation etc."[3] The argument is as follows:

> 'There would be no question of ascribing one's own states of consciousness, or experiences, to anything, unless one also ascribed, or were ready and able to ascribe, states

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1. P.F. Strawson, Individuals, p. 97.
2. Ibid., p. 97.
3. Ibid., p. 102.

> of consciousness, or experiences, to other individual entities of the same logical type as that thing to which one ascribes one's own states of consciousness. The condition of reckoning oneself as a subject of such predicates is that one should also reckon others as subjects of such predicates. The condition, in turn, of this being possible, is that one should be able to distinguish from one another, to pick out or identify, different subjects of such predicates, i.e. different individuals of the type concerned. The condition, in turn, of this being possible, is that the individuals concerned, including oneself, should be of a certain unique type: of a type, namely, such that to each individual of that type there must be ascribed, or ascribable, both states of consciousness and corporeal characteristics.'[1]

Strawson brings out the implications of this characterisation of the type of things called 'persons' by distinguishing two kinds of predicates. He calls them M predicates and P predicates. The former are predicates which are properly applied to material bodies also. The latter are predicates which could not possibly be applied to material objects, and include actions and intentions, thoughts and feelings, perceptions, memories and sensations. Some of the P predicates are such that their ascription to an individual constitutes the ascription of states of consciousness to the individuals. We have to acknowledge that we ascribe such P predicates (as ascribing states of consciousness) to ourselves on grounds different from those on which we ascribe them to others. We ascribe them to others on the basis of observation of their behaviour, and to ourselves without such observation. Nevertheless, the behaviour criteria, according to Strawson, are logically adequate criteria for ascribing these predicates to others in the same sense as we ascribe them to ourselves without such criteria.[2]

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1. P.F. Strawson, Individuals, p. 104.

2. Ibid., pp. 106 ff.

Thus, in claiming the primitiveness of the concept of a person, Strawson declares that persons are a logically irreducible category of things to which both states of consciousness and physical characteristics (both M predicates and P predicates) are equally ascribable, and to which states of consciousness are applied in the same sense on grounds of behaviour criteria (the case of other ascription) or without such grounds (the case of self-ascription).

Now, in the theory roughly outlined above, there are many points which invite discussion. Fortunately, quite a few standard reviews and critical discussions of Strawson's position are already available, and these may be profitably referred to for detailed comments and criticism.[1] In what follows we shall only try to focus attention to some of the points which seem crucial in the theory.

The notion of identification of particulars as the basis of a classification of them is fundamental to Strawson's position. A necessary condition is that there is a unique and unified spatio-temporal system which is the framework of particular identification. As regards the nature of the spatio-temporal system there is a fundamental difference between Russell and Strawson on more than one count. For Strawson, there are only one space and one time; for Russell, these may be many both in kind and number. Again,

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1. G. Bergmann, 'Strawson's Ontology', Journal of Philosophy, 1960; B.A.O. Williams, 'Mr. Strawson on Individuals', Philosophy, 1961; D.F. Pears, 'Critical Study of Strawson's Individuals', Philosophical Quarterly, 1961; J.O. Urmson, 'Critical Notice of Strawson's Individuals', Mind, 1961; A.J. Ayer, The Concept of a Person and Other Essays.

for Strawson, the space-time structure is constituted by material bodies and persons; for Russell, it is constituted by events. Now, it is not logically necessary that there should be only one space and one time; and Strawson has no arguments to show that those who hold that there may be more than one space and one time are necessarily wrong. As regards the point about what constitute the space-time structure, it will perhaps be clear from the following that Strawson's claims cannot be maintained without difficulties.

Strawson holds that the spatio-temporal system which is the framework of particular identification is constituted by "things that are, or possess, material bodies". Only the "three dimensional objects with some endurance through time", accessible to ordinary means of observation, are competent to constitute the space-time structure. "Material bodies constitute the framework".[1] And the basicness of material bodies (and things possessing them) follows from their being the constituents of the space-time structure. But according to Strawson, we identify particulars including material bodies, by locating them in the spatio-temporal system. So, the space-time structure is constituted by material bodies, and material bodies are identified by their location in space-time. There is thus a circularity in Strawson's position. For the basicness of material bodies (and persons) is based on the argument that "it is a conceptual truth ..... that places are defined by the relations of material bodies; and ..... that persons have material bodies."[2] So, places are identified in terms of material bodies,

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1. P.F. Strawson, Individuals, pp. 39, 56.
2. Ibid., p. 58.

and material bodies are identified in terms of places.[1] Of course, Strawson recognises this circularity and remarks that there is no mystery about this mutual dependence, that to exhibit its details is only to describe the criteria by which we criticise, amend and extend our ascription of identity of things and places.[2] He does not exhibit the details, and lets the circularity remain as part of the basis of determining the basicness, and ontological and logical priority and primitiveness of certain types of particulars to others. But this is unsatisfactory, since it is the dependence or independence in identification that for Strawson, determines the status of different types of particulars, "since an important part of his aim is precisely to show what parts of our identificatory conceptual system depend on or presuppose what".[3] One thing, however, seems clear. It is his admission that there are genuine cases of mutual identificatory dependence. And if we accept this as a principle, there seems no reason to suppose that the relation of material bodies and the space-time structure is the only case of this.

As regards the connection of 'basicness in identification' and 'ontological priority', we may observe the following. Ontological priority is an order of being or existence, and not an order of knowing. Philosophers have tried to explain the order of being on the basis of the order of knowing. But Strawson ~~is~~

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1. B.A.O. Williams discusses this and some other circles; c.f. Philosophy, 1961, pp. 319-20, 326.

2. P.F. Strawson, Individuals, p. 37.

3. B.A.O. Williams, 'Mr. Strawson on Individuals', Philosophy, 1961, p. 320.

is further removed, for his explanation is in terms of an order of identification in communication. Although he originally proposes to mean by 'ontological priority' nothing more than basicness in identification, he nevertheless claims at the end existential priority of material bodies and persons. These particulars are said to exist primarily; and this conclusion is derived from the basicness of these things in particular identification. The idea seems to be that the independently identifiable categories of particulars have a sort of independent existence and reality which the dependently identifiable particulars do not have. That is to say, if X's are a category of particulars such that they cannot be identified except by their relations to another category of particulars, say Y's, and not vice versa, Y's then have a primary existence, whereas X's have only a secondary existence, the existence of X's being dependent on the existence of Y's but not vice versa. This could mean that Y's can exist without X's, but X's cannot exist without Y's. But Strawson cannot hold such a position; for this would mean that material bodies could exist without the physical particles (which for him are dependent for their identification on material bodies), but that the physical particles could not exist without macroscopic material bodies. This is obviously false, and the contrary is rather the case. It is possible to think that the world could contain only a highly rarefied gas, i.e. physical particle could exist without there being any macroscopic material bodies. And this possibility seems to frustrate any attempts to attach some meaning to the expression 'primarily exist' in the context of Strawson's arguments concerning identification of particulars.

Certain conclusions seem to follow immediately from a consideration of material bodies and their relations to physical particles. It seems clear that physical particles do not depend for their existence on material bodies, but that material bodies do depend for their existence on physical particles. As it is possible to imagine the world to be in a gaseous state without containing macroscopic bodies, it follows that material bodies could not be the basic particulars. For, would the gaseous world be in space and time? It seems absurd to suggest that it would not. But, then, the space-time in which it would be, would not be constituted by "things that are, or possess, material bodies". It follows that material bodies are not the bricks and stones that constitute the space-time structure. So, material bodies cannot be basic in particular identification, for according to Strawson their basicness follows from their being the bricks and stones of the space-time structure.[1] If we ask whether identification of particulars (e.g. physical particles) or events in the gaseous world would be possible, the answer 'yes' or 'no' is once more crucial against Strawson's claims. If the answer is 'yes', his theory of basicness of material bodies falls to the ground. A further consequence of this is that the way a certain particular or event is identified has no bearing on its identity and existence; a particular may be variously identified, but its identity and existence cannot be said to be various. But perhaps the answer should be 'no'. The obvious

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1. J.O. Urmson in his review of Strawson's position produces an argument to show that material bodies are not identificatorily basic even in the world we live in; c.f. Mind, 1961, pp. 259-60.

result would then be that the notion of identification had no direct relation with the conception of identity and existence at all.

One more result that follows from a consideration of material bodies and their relation to physical particles is this. Even if we admit, with Strawson, that physical particles are identified only by their relations to material bodies, it remains a fact that material bodies are composed of, or constituted by, physical particles. Strawson admits this.[1] The principle that follows is that basic particulars, which he claims to be primary existents, can in fact be composed of the non-basic particulars which have only a secondary existence depending on the primary particulars which they compose. The oddity in the use of the words 'basic' and 'non-basic', 'primary' and 'secondary', in this principle is obvious; but that is the principle we get from Strawson.

The doubts and difficulties noted above and the results obtained apply not only to Strawson's conception of material bodies, but also to his thesis about persons, for both are, for him, basic particulars and primary existents. This will, I hope, be clear as we proceed; but we may first refer to certain points in his discussions of the concept of a person, which seem to involve such difficulties as may be regarded sufficient for rejecting his claims.

In respect of the concept of a person, Russell and Strawson differ in more than one way. One important difference concerns our knowledge of other minds. Russell bases this on analogy; but

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1. P.F. Strawson, Individuals, p. 44.

Strawson rejects analogy and says that we can ascribe states of consciousness to ourselves only if we can ascribe them to others, that there are logically adequate criteria for ascribing them to others in the same sense as we ascribe them to ourselves without such criteria. We do not wish to go into this controversy. Ayer's instructive discussions may be referred to in this connection.[1] But Strawson's argument in favour of these criteria is not free from defects. He connects this argument with his claim of the primitiveness of the concept of a person. It is this latter point in which Russell and Strawson differ most fundamentally. We shall be mainly concerned here with this controversy about the primitiveness or derivativeness of the concept of a person; but some of what we shall say may be said to have reflections on the former controversy as well.

Persons, according to Strawson, are a category of logically irreducible things to which both states of consciousness and physical properties are equally ascribable, and to which states of consciousness are applied in the same sense on grounds of behaviour criteria (other-ascription) and without such criteria (self-ascription). The distinction of persons that we have can there be only if there are predicates which we can apply either (to others) on observation of behaviour or (to ourselves) without such observation; and therefore there are such predicates. Now, there is in this argument an inconsistency which, according to Urmson, is

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1. A.J. Ayer, The Concept of a Person and Other Essays, pp. 87 f., 95 ff.

alone sufficient for rejecting the primitiveness of the concept of a person. To quote him:

> 'But it surely is intuitively obvious that there cannot be predicates P such that O (observation) can be a sufficient condition of ascribing P and E (one's own unobserved experience) a sufficient condition of ascribing P but O is not in any way equivalent to E, except in an incoherent conceptual scheme.'[1]

Urmson directs this argument against the claim of primitiveness of the concept of a person; but this must also affect Strawson's rejection of analogy, for this rejection is precisely based on the arguments about the criteria which are here in question.

We may now ask how persons are identified. Strawson's immediate answer might be that they are identified in the same way as material bodies, for persons possess material bodies, and "things that are, or possess, material bodies" are independently identifiable particulars. But this would be unsatisfactory because what would be identified in this way would only be a body; it would not be possible to say that this is a person, unless one takes a physicalist position such that a person is a body. Even the physicalist will have to distinguish a body which is a person from the one which is not, and this will not be very easy. There are difficulties in the physicalist position[2]; and Strawson does not accept it. So he needs something more to make the identification of persons possible. The something more is in fact the states of consciousness or experiences which are ascribed to the same thing as certain

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1. J.O. Urmson, 'Critical Notice of Strawson's Individuals', Mind, 1961, p. 261.

2. See above, pp. 301 f.; c.f. also A.J. Ayer, The Concept of a Person and Other Essays, pp. 101 ff.

physical properties (i.e. a body). It follows from this that the identification of persons requires, among other things, ascription of states of consciousness.

Strawson connects identificatory primitiveness with the notion of 'logical priority'. Persons are 'logically prior' to minds and experiences because the latter are dependent for their identification on the former. Strawson does not specify the meaning of 'logical priority' except in terms of identification; and therefore this expression may be taken as synonymous with 'identificatory priority'. In that case, what we have said in the last paragraph makes it impossible to stick the label of 'logical priority' on either side. But there is a sense in which 'logical priority' might mean conceptual priority such that, if A was logically prior to B, the logical conception of A did not involve the concept of B, but the logical conception of B involved the concept of A. In this sense, the logical priority of persons to minds and experiences would mean that the idea of a person did not involve that of a mind or experiences, but that the idea of a mind or experiences involved that of a person. But this does not seem to be the case; it seems impossible to think of a person except as a subject of experiences or states of consciousness. If we cite the case of an unconscious person, we are still thinking in terms of absence or presence of consciousness; i.e. in terms of an individual who is a proper subject of consciousness or experiences. (And this may be the reason why Strawson requires the ascription of states of consciousness for identification of persons.) The position seems to be that we cannot think of persons except as subjects or owners of

experiences. The converse of this seems doubtful; and this becomes clear when we consider another connection of Strawson's arguments, viz. the notion of existence. He claims that person (and material bodies) are primary existents. We have already seen that it is difficult to attach any special significance to this claim. In any case, Strawson cannot consistently hold that experiences (and minds) cannot exist without belonging to persons in his sense, i.e. in the sense in which persons are things to which both states of consciousness and physical properties are equally applicable. For, he admits that a disembodied ego or mind can exist[1] and can have various experiences except "perceptions of a body related to one's experience as one's own body is".[2] The disembodied ego or mind is not a person in its primary sense; and if there is a question of existential priority or independence, experiences (as well as minds) seem to be the better candidates for it than persons in the primary sense -- a result quite contrary to what Strawson wishes to maintain.

It follows that Strawson's claim of primitiveness of persons cannot stand in any of the senses mentioned above. In respect of identification, persons and experiences appear to be mutually dependent; as concepts they first appear to be mutually dependent, but the relation changes when it comes to the question of existence; we can think of experiences and minds as existing independently of persons, i.e. without the persons (in the primary sense) existing.

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1. P.F. Strawson, Individuals, pp. 115-6.
2. Ibid., p. 115.

This last change must reflect on the notion of identification. It seems strange to suppose that experiences can exist, and can be thought of as existing, without persons, and yet cannot be identified without persons. We must therefore doubt that the way a particular is identified has a direct relation to its identity and existence, or that there is only one way of identifying particulars; and these are the doubts we were mentioning in connection with the concept of the ontological priority of material bodies. Since Strawson admits that a disembodied mind could perceive from a point of view, there seems no reason why this mind and its experiences could not be identified by this point of view.[1]

If, then, the primitiveness of the concept of a person cannot stand, the claim that the concept cannot be analysed or explained in a certain way or ways (and particularly in terms of mind or experiences and body) must also go, for this claim is what precisely Strawson wishes to mean by the primitiveness of the concept. He seems to think that for the analysis of something to be possible the terms of the analysis must be identifiable independently particularly of the thing to be analysed. As minds and experiences cannot, according to him, be identified independently of persons, the latter cannot be analysed in terms of the former but the former are to be analysed in terms of the latter. But we have already seen that the identificatory primitiveness of persons cannot be maintained; hence the claim in respect of their unanalysability also cannot stand. In any case, Strawson cannot consistently

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1. Cf. B.A.O. Williams, 'Mr. Strawson on Individuals', Philosophy, 1961, p. 132.

maintain that, just because experiences (or some other particulars) are not identified independently of persons, persons cannot therefore consist of, or be constituted by, experiences (or some other particulars). We have seen that he admits the principle involved in this. What he seems to object to is that the definition of the composition of a thing or person is an analysis of the thing or person. But, as Urmson remarks, "if in ordinary life we give a meaning to the word 'water' ostensively by reference to rivers, lakes, seas, etc., we also in the laboratory may regard its chemical composition definitive".[1] Composition or constitution of complexes is a fact; and if someone holds that explaining the composition of a thing is an analysis of it, Strawson should have hardly anything to object to.

Strawson cannot then hold that persons cannot consist of particulars (experiences and others) which are identified by their relations to persons. He says that 'person' is not a compound idea. But he cannot surely mean by this that it is the idea of a simple particular; for that would contradict the view he holds in the second part of his book wherein he maintains that every particular 'unfolds' itself in some simple facts which are the ultimate metaphysical entities.[2] The position is not easy to follow: the ultimate metaphysical entities, the ultimate simples, are not primary concepts or primary existents; their existence and

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1. J.O. Urmson, 'Critical Notice of Strawson's Individuals', Mind, 1961, p. 261.

2. P.F. Strawson, Individuals, pp. 210-12.

identification depend on the particulars which 'unfold' themselves into them (simples) and to which they (simples) 'fold up'. The obvious oddity of this position does not disturb Strawson. However, his position comes to that particulars including persons and bodies are complexes.[1] But whatever is a complex is a complex of some simple elements; it consists of the simple elements. Strawson's words are 'folding' and 'unfolding'; and he uses the word 'regress' for what others might call 'analysis'. But whatever gains he may have achieved from using these words, he has not produced anything which could reject the idea that persons (and material bodies) consisted of simpler elements and were in this sense derivative.

Strawson explains the relation of persons and their experiences as one of logically non-transferable ownership. He is certainly right in supposing that there is such a relation. But how are we to understand this relation? Strawson seems to think that a person is something over and above his experiences (and body). He is the possessor, and the experiences (and the body) are what he possesses. A person is not only distinguishable from what he possesses, but has a separate individuality of its own. If we ask what he is or in what this separate individuality consists, we get the tautological answer that he is a person. A person is thus a substance-like thing that has just this logical function of possessing the experiences (and the body); that is, it is a concept which is introduced only to give a meaning to the concept of the non-transferable ownership of experiences. But it is not necessary that

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1. Cf. D.F. Pears, op. cit., Philosophical Quarterly, 1961, p. 271.

the notion of this ownership must be explained in terms of a substance-like unanalysable concept whose nature remains for ever indefinable and as such a sort of a mystery. There is a perfectly legitimate sense of ownership which does not require a substance-like owner over and above what is owned. This is the sense in which we speak of a complex whole as possessing its parts or constituents. Thus, for example, we say that the jury has three members; or that a human body has two legs, two hands, etc., or that a table has four legs, a top, etc., and so on. To suppose that a table or a human body is something over and above its legs and other parts is to fall into a mysterious realm of substance philosophy which Russell and many others have tried to get rid of. (That Strawson's position involves the notion of substance may be noticed in his view of particulars and their predicates. Particulars, for him, are the subjects to which predicates are ascribed; and a person is the subject of M. and P. predicates. A particular is a sort of a peg on which the predicates hang. As Russell points out, such a notion of a particular involves the notion of substance; the particular cannot be defined or known; it is something serving the merely grammatical purpose of providing a subject in a subject-predicate sentence. "And to allow grammar to dictate our metaphysic is now generally recognised to be dangerous".[1] Russell, therefore, abandons the idea of a particular over and above predicates and relations. He holds the Berkeleyian view that what we ordinarily call particulars are only groups of predicates and

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1. Human Knowledge, p. 311.

relations.[1] Now, whether this is true is still an open question; we cannot, therefore, say that it is not.)

If, instead of taking a table or a body or a person as something over and above its constituents, we take it to be a complex whole consisting of its constituents, we can still have the sense of ownership that Strawson mentions. If we raise the question of identification, it seems clear that a leg can be properly identified as that of a body or a table, and a top as that of a table, and so on. But it does not follow from this that the body does not consist of the legs, hands and other parts which it possesses, or that a table does not consist of the legs and other parts which it possesses. In the same way, it seems possible to suppose that persons consist of, among other things, the experiences they possess.

It may be objected that this way of treating the concept of a person is not proper. For, it may be said that the legs of tables or human bodies can be identified independently, but experiences cannot. But the objection cannot stand; because a leg cannot be identified except as a leg of some body. What can be identified independently is not a leg but a piece of matter (perhaps wood) which in its relation to some other pieces of that kind is called a leg. 'Leg', 'top', and in short 'part' or any other words with that implication are relational terms; and things denoted by them are properly identified by the relations they imply, i.e. their relations to the other parts which together with themselves make a complex thing. When we say that a part is identified by its relation to

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1. See above, pp. 70, 104.

the whole of which it is a part, the proper meaning is that it is identified by its relation to the other parts of the complex whole. 'Experience' is such a relational term, and it is because of this that we properly identify it by its relation to the complex thing to which it belongs, i.e. the person. And this only means that an experience is identified by its relation to other experiences and events that constitute the person. Strawson says that experiences are identified by their relations to persons. But this is not enough. We cannot simply identify an experience by saying that it is an experience of a person P. P has had a lot of experiences during his lifetime, and is having a lot of them at this moment. We have to specify exactly which experience it is. The way this can possibly be done is to locate it in terms of its relations to other experiences and events that P has possessed and possesses; and the experiences and events P possesses are those which constitute P. This brings us to Russell's conception of a person as a complex biography.

It seems clear from the above that the problem of the circularity involved in defining persons in terms of experiences and identifying experiences in terms of persons does not remain. For an experience is identified by its relations to other experiences (and events) which together with itself constitute the person, and not by its relation to a 'person' which is something over and above the experiences (and events). To my mind, the circularity arises only if we suppose that, in the complex situation as the personal situation is, a 'person' is one item in just the same sense as the experiences (and other events) are items in the

situation. In other words, the circularity arises out of a category-mistake, i.e. the mistake involved in supposing that a 'person' is just one item in the situation, which is defined in terms of the other items, and that the other items are identified in terms of this one item. But if we suppose that this one item is not there in the situation, the circularity in respect of it seems to vanish.

But perhaps we have not yet answered the objection that experiences cannot be independently identified whereas legs, hands and tops can. We have so far said that 'legs', 'hands', 'tops' and 'parts' are relational terms and so is 'experience', and that they are properly identified by the relations they imply. We have also said that a piece of matter which can be a leg or a hand can be identified independently in Strawson's sense. In other words, we seem to have a use for both relational and non-relational names of things which can be legs or hands or tops, and therefore a case of both dependent and independent identification. The question is whether we have a similar case in respect of experiences. The answer, on Russell's view, seems to be that we have. 'Experience' is a relational term; but 'event' does not seem to be so. If we say 'X is an experience', the question 'whose experience?' is in order; but if we say 'X is an event', the question 'whose event?' does not arise. Russell's terms of analysis of body, mind and person are events. Although in his explanation he uses the terms 'sensations' and 'images', the ultimate analysis is in terms of events. 'Sensations' (or

'percepts') and 'images' are the sort of relational terms we have discussed above. But they have a non-relational name: they are events.

Strawson thinks that, although some kinds of events such as bangs and flashes could themselves form a limited system of their own and could be independently identified by their position in this system without reference to other kinds of particulars, most events cannot be so identified. On his view, the vast majority of events are states, processes, undergoings, actions or experiences of things and persons, and therefore dependent for their identification on these things and persons. He in fact argues that events in general are dependently identifiable.[1] Now, there are indeed events which are states, processes, undergoings, actions or experiences of material bodies or persons, though it is doubtful that they are the majority of events. Here again, we should notice that states, actions, etc. are relational terms; and what we have so far said about experiences apply equally to these also. These may be treated either relationally or non-relationally simply as events. Thus, as Russell thinks, the world may be considered as a complex net-work of events or chains of events; and in this world every event could be identified by its position in the net-work, i.e. by its relation to other events. We have seen that Russell constructs space-time out of events. Every event has a place in the space-time structure and is therefore directly locatable in the structure. Strawson's argument about states, processes, actions, etc., should not detain us here; but we shall have something to say about

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1. P.F. Strawson, Individuals, pp. 46 ff.

actions of persons later on.

We have seen that Strawson cannot, on grounds of identification, maintain that things and persons cannot consist of experiences, events or other categories of what he calls dependently identifiable particulars. On this count, therefore, his views cannot possibly be regarded as forming a basis of a criticism of Russell's position; for what the latter requires is only that body, mind and person consist of simpler elements, viz. events. But Strawson has a very brief argument[1] which he directs against the sort of eventism that Russell holds. This argument opposes the view that things and persons are each a series of events, a biography, i.e. against the theory of what Strawson calls "process-things". He summarily dismisses this theory by saying that "the category of process-things is one we neither have nor need", and that "we do in fact distinguish between a thing and its history, or the phases of its history".[2] The reason for this quick disposal is that as a 'descriptive metaphysician', he is concerned with the available major categories of common sense things and concepts. But it is the inconsistencies and inadequacies of common-sense concepts and common-sense philosophy that have led many philosophers to what Strawson calls the 'revisionary' metaphysies; and in their attempts to remove these difficulties and supply these inadequacies they have found it useful to introduce new ideas and new methods of interpretation. The need for such concepts as Strawson objects to,

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1. P.F. Strawson, Individuals, pp. 56-7.
2. Ibid., p. 57.

arises precisely out of the difficulties many of which are to be found in his own system; some of these we have already mentioned, and many others have been pointed out by the commentators referred to above. As regards things and their history, Strawson says that we do distinguish them. But simply to assert this common-sense idea is not a reply to those who think that things are their 'biographies'. For, that we ordinarily make the distinction is not in dispute; what is in dispute is whether we are right in doing so. Those who identify things with their biographies think, perhaps rightly, that to assume permanent things over and above the states, processes or events which constitute their biographies is to accept the existence of unknown and unknowable permanent substances. Strawson's brief statements in this connection do not show that these thinkers are not right in defining things and persons as biographies.

Does Strawson's position over-rule neutral monism? We have seen that his position does not affect Russell's views; and as such it cannot also affect his neutral monism. In fact, his position ultimately turns out to be one like Cartesian dualism in such a way as he himself does not perhaps realise, and it involves most of the difficulties characteristic of this kind of philosophy. The way he distinguishes between M predicates and P predicates, between states of consciousness and bodies, and the way he conceives of the subjects of perceptual experiences and disembodied minds as well as the contingent nature of their relation to bodies, create a wide gulf between what we call mind and body. Neutral monism is an attempt to bridge over this gulf. For a fuller discussion of these topics

of Strawson's system, Bernard Williams' article may be referred to.[1] We may only mention the following. Strawson takes states of consciousness to be of a completely different kind from matter or bodily states. He divorces " 'states of consciousness' from bodily states in a way that invites the Cartesian spectre in at the back door while Strawson is wheedling it out of the front".[2] He has a fantastic idea that a subject of perceptual experience may contingently depend for a visual perception on the open eyes of one body, the direction of the head of another body, and the position of a third body.[3] He admits also the existence of disembodied minds. He has an idea that some particulars may be only in time and not in space.[4] Presumably these are mental or private particulars such as states of consciousness. But if mind and body, or states of consciousness and bodily states are conceived to be so divergent, there are then difficulties in understanding their relations. An attempt at closing this gap in order to remove these difficulties is therefore in order. Strawson's position does not therefore overrule neutral monism; on the contrary, the difficulties of Cartesian dualism into which Strawson's position falls seems to justify such attempts as Russell's neutral monism is. Russell's position, his neutral monism, may be wrong; but there is nothing in Strawson's philosophy which proves that this is the case.

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1. Philosophy, 1961, pp. 329-32.
2. B.A.O. Williams, 'Mr. Strawson on Individuals', Philosophy, 1961, p. 331.
3. P.F. Strawson, Individuals, pp. 90 ff.
4. Cf. Ibid., pp. 22-3, 25.

As regards persons, there is one more point about which we should say a few words. The question is whether Russell's neutral monism, as it finally stands, allows for the concept of a person as a free active agent. It is ultimately the question about the possibility of freedom of will and action. A person, according to Russell, is a complex of events organised into a single structure according to psychological and physical causal laws. All actions are events or series of events, and all events are causal events. Could we not, then, say that his position did not allow for freedom of will and action, that it is determinist and had no room for morality and ethics?

We have already seen how Russell explains will and voluntary action. He thinks that volition with deliberate choice is a later development in human life, that an infant's actions are not at first voluntary, that as he grows in age and acquires more and more knowledge and skill, he becomes more and more free. In other words, as the mind of a person becomes more and more complex, he has more and more freedom of will and action.

In respect of Russell's views on the possibility of freedom of will in a world governed by, and explained in terms of, causal laws, we may notice the following. First, there are, for him, psychological laws which cannot be reduced to physical laws. So, physical determinism would not entail psychological determinism. Accordingly, although human volitions could be partially conditioned by physical laws, they would, at least partially, be subject to psychological causation. But mental causation is an internal affair of a person's life. The mental causation of volitions does

not involve external determination; it involves such conditions only as are factors of a person's inner life. In this sense, a person's volitions may be said to be a matter of 'self-determinism'.

Secondly, in modern science, particularly in quantum physics, physical laws are no more thought to be deterministic as they previously used to have been. We cannot predict when a discontinuous change in an atom or a quantum transaction will take place; and the laws of physics cannot determine which of several possible transactions a given atom will undergo. Russell derives the possibility of human freedom of will from this. He suggests that we may even fancy that an atom has a limited freewill. He thinks that mind-brain inter-relations involve very minute phenomena, that very minute cerebral differences must be connected with noticeable mental events, so that mind-brain correlations may be regarded as belonging to a region where causal determinism does not hold. He recognises that the unpredictability of quantum transactions may be due to insufficiency of our knowledge, but that we cannot be sure that this is the case. So, he thinks that it is not necessary for us to deny the possibility of human freedom of will.[1]

The argument for human freewill from the indeterminist nature of scientific laws has good following. Some philosophers, for example, K.R. Popper,[2] have argued that not only quantum physics but even 'classical mechanics' is not deterministic. So, there seems no sound scientific grounds for denying the freedom of will

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1. The Analysis of Matter, p. 393; An Outline of Philosophy, pp. 305, 309; Human Knowledge, pp. 54 ff.

2. British Journal for Philosophy of Science, 1950, pp. 117 ff., 173 ff.

will and action.

Now, to derive human freewill from the indeterminacy of quantum transactions seem to be a philosophical muddle. There is a fundamental difference between quantum indeterminacy and human freewill. The unpredictable quantum transactions are random changes; but human freewill is not a matter of random transactions, it involves deliberate choice of ends and means. So, Russell's attempt to derive freewill from the indeterminist nature of quantum physics is a confusion of issues. All that the supposed indeterminism of scientific laws, particularly quantum physics, can lead to is the negative conclusion that determinism is not absolute.

Russell's position concerning the problem of freedom of will has to be considered from a different point of view. We have already argued that the final version of Russell's complete neutral monism is a kind of 'emergent' neutralism in so far as he admits that body and mind have emergent properties. We have tried to emphasise the importance of this in Russell's theory. An organised complex whole consisting of simpler elements must have properties which are not to be found in the elements themselves. To deny this is to commit what R.J. Hirst calls the 'fallacy of Composition'.[1] Russell admits that there are such emergent properties and that body, mind and persons are complexes having emergent properties. Accordingly, quite apart from the question of whether scientific laws of events are rigid and determinist, it is quite possible to maintain

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1. R.J. Hirst, The Problems of Perception, p. 217.

that deliberate, intelligent and purposive activity, and freedom of will and action are the emergent properties of persons.

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