BROAD, RYLE, AND DENNERT:
A DISCUSSION OF IMPORTANT CHANGES
IN TWENTIETH-CENTURY PHILOSOPHY OF MIND

by
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B.A., York University, 1992

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
MASTERS OF ARTS
in
THE FACULTY OF GRADUATE STUDIES
(Department of Philosophy)

We accept this thesis as conforming
to the required standard

THE UNIVERSITY OF BRITISH COLUMBIA
October 1996
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Date Tuesday, October 15th, 1996
In my thesis I discuss and criticize the work of three important philosophers: C.D. Broad, Gilbert Ryle, and D.C. Dennett. These three figures serve as reference points, allowing me to frame the discussion of my view that there is an emerging tradition in contemporary philosophy of mind, a tradition which has its roots in the philosophical views of Gilbert Ryle. I'll show that C.D. Broad belongs to an older school of thought, one which Ryle opposes both explicitly and implicitly. Daniel Dennett, a contemporary philosopher, was deeply influenced by Ryle, and I believe that he is the most important flag bearer for this new way of thinking about the mind. He has also made some substantive contributions and amendments to this emerging paradigm.

Upon examination, we can see that proponents of this new view oppose any form of *Cartesianism* and deny that we have an *pre-linguistic intuitions*. These philosophers are apt to give accounts of the mind and mental terms which not only deny the mind status as a substance, but also claim that mental terms don't refer to events and processes at all. A view called *Emergentism*, endorsed by Broad, is rejected by thinkers such as Ryle and Dennett, but I'll show that there is a distinct form of emergentism (one which is less philosophically problematic) which forms a vital part of the new tradition.
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INTRODUCTION

Philosophy of mind has undergone a dramatic shift in emphasis over the last one hundred years, due to a large extent to a re-conceptualization of the task of philosophy generally. Philosophy of mind has been on the forefront of this revolution in the discipline and has demonstrated that old problems can be resolved or dissolved by adopting new approaches. In my thesis, I will examine the emergence of these new intellectual developments by means of three reference points: the philosophical works of C.D. Broad, Gilbert Ryle, and D.C. Dennett.

C.D. Broad's principle contribution to the field, *The Mind and its Place in Nature*, first appeared in 1925. Today, however, few read this massive work, primarily because there are not many in the philosophical community now who are apt to think about these issues in the way that Broad and his contemporaries did. By means of an examination of Broad's philosophical views, I'll show how traditional assumptions (both implicit and explicit) drive Broad to adopt problematic positions.

Principle among these assumptions is a lingering Cartesianism, and one of the central tasks of Gilbert Ryle's *The Concept of Mind* was to expose and eradicate 'Descartes' Myth', as he called it (Ryle 1949, 13). This book appeared in mid-century, and I believe that it marks the beginning of an important shift in approach towards the issues in philosophy of mind. The contemporary philosopher Daniel Dennett was deeply influenced by Ryle and his work, and Dennett's work in the field indicates to me that there is a new tradition emerging—Richard Rorty has called it the "Ryle-Dennett tradition" (Rorty 1982a, 325)—which is changing the way philosophers approach the issues in this field.

It is my primary goal to argue that such a tradition is in fact emerging, and in the final chapter I extract, from the discussion of the three philosophers in the preceding chapters, a set of four crucial themes which will enable me to distinguish this new tradition from that which was still predominantly unquestioned in Broad's day.
CHAPTER ONE

1) Introduction

C.D. Broad's *The Mind and its Place in Nature* is based on his Tarse Lectures series given at Trinity College in 1923. First published in 1925, it is a massive (666 page) work, devoted to an investigation of the phenomenon of mind and its relation to the natural world. As such, it is an attempt to solve the perennial problem in the philosophy of mind, namely how can we bring our scientific conception of ourselves as biological organisms into harmony with our intuitive self-conception as centres of subjectivity and agenthood? Broad was well aware of the complexity of his subject matter and the danger of prematurely rejecting viable alternatives. Broad describes his basic strategy as one in which he canvasses all the possible alternative theories in any particular department of knowledge, and the alternative which is most favoured when considered in the light of its relation to other departments is then selected. In theory, then, Broad can move safely towards truth by replacing "less determinate theories by true and more determinate theories"(Broad 1925, 8). An admirable goal, but I'll argue that Broad's tacit assumptions both constrain the alternatives that he is willing to countenance and drive him to reject promising theories prematurely.

In this chapter, I will focus on three critical parts of Broad's book: 1) his views on emergentism, 2) his discussion of the kinds of relations between body and mind that are possible, which is found in the second chapter, and 3) the crucial final chapter, in which Broad examines an allegedly exhaustive list of seventeen possible theories of the mind's place in Nature and argues for one. I'll show that Broad has presented us with a mysterious doctrine in emergentism and that he has failed to offer any positive motivation for preferring emergentism over more mechanistic alternatives. Various problematic assumptions are revealed to be at work in the second part, dealing with the relation between body and mind, including a key introspectionist assumption. This assumption does a lot of work in the final chapter, where Broad uses it to

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1 This book will be referred to as *MPN* in the text.
constrain his list of possible theories in too rigid a manner, as well as illegitimately and prematurely removing promising theories.

2) Emergentism

a) In *MPN*, Broad defends a view of the mind he calls *Emergent Materialism*, a theory which applies the general emergentist theories of S. Alexander and C.L. Morgan to the relation between the biological and the psychological level of explanation. In this section I will outline the basic emergentist picture, as put forth by Alexander, and also Broad's exposition of the same idea in chapter 2 of *MPN*. Broad argues here that Emergent Vitalism is the least problematic of three possible types of theories at the biological level. At the same time he lays the groundwork for his argument in the final chapter of the book for Emergent Materialism. I will show that his arguments against mechanistic theories are flawed, and that his further argument that "trans-physical" laws must be emergent relies on assumptions that are now open to question.

b) S. Alexander argues in *Space, Time, and Deity* that a scientist's ability to predict is limited by the 'nature of things'. The universe, he claims, is so constituted that over time there is an increase in the amount of complexity. However, this relatively uncontroversial statement is followed by a claim that, at certain critical points, novel properties appear or 'emerge', creating a hierarchy of levels (e.g. physical, chemical, biological, and psychological). Importantly, the properties associated with each new level are *in principle* unpredictable from the level immediately below it.

A being who knew only mechanical and chemical action could not predict life; he must wait till life emerged with the course of Time. A being who knew only life could not predict mind, though he might predict that combination of vital actions which has mind... (Alexander 1920, 72)

According to Alexander, we are to accept the existence of emergent qualities as 'brute facts' which admit of no further explanation.
c) Broad takes up the issue in chapter 2 of *MPN*, in which "emergent vitalism" is canvassed as the most promising of three possible theories of the difference between living and non-living things, the other two being "substantial vitalism" and "biological mechanism". Although the discussion here is restricted to the biological debate, Broad does think we can generalize these three positions into general theory types (i.e. theories of special component, theories of emergence, and mechanistic theories) and arguments here are intended to have a bearing on debates at other levels.

The substantial vitalist position states that living things exhibit the characteristic behaviour that they do by virtue of a special structural component occurring only in living things (referred to in the text as an 'entelechy') which is a necessary, but probably not sufficient (chemical factors are assumed to play some role), condition for explanation of this behaviour. The analogous special component theory at the psychological level is dualism, for dualism is the view in which organisms are said to be conscious by virtue of their possession of an immaterial mind.

A biological mechanist would claim that the characteristic behaviour of the organism is completely determined by the nature and arrangement of the component parts which in this case, would be the chemical compounds out of which all living organisms are composed. A general mechanistic theory would presumably argue for some sort of monism, and the psychological analogue would be either reductive or eliminative materialism.

An emergent vitalist would deny (pace the substantial vitalist) that there is any actual component or substance that endows living organisms with their characteristic properties, but would also deny that their characteristic behaviour can be deduced, even in principle, from knowledge of the component parts of which they are composed. This is to say that the chemical structure of living things is not enough to determine their characteristic biological properties. Biological mechanism is false because certain properties common to all living things, and to nothing else, emerge as properties of certain complex chemical compounds, but we must actually experience these properties
in order in order to know of them. A more general theory of this type, as already noted, is Alexander's, and Broad's own Emergent Materialism is an application of emergentism to the psychological level.

d) Substantial Vitalism is rejected forthwith as an unsatisfactory theory, and Broad gives three reasons why this is so. I'd like to examine these quickly, as the Dualistic position, the psychological analogue of Vitalism, is not given such dismissive treatment. Obviously, Broad must discern some important disanalogies between the biological and psychological versions of the special component theory, and these will prove to give us a clue as to the assumptions that motivate his choice of emergent materialism over both dualistic and mechanistic types of psychological theory.

The three reasons for Broad's rejection of substantial vitalism are as follows:
i) No special component (or 'entelechy') has ever been scientifically isolated, so it remains a purely hypothetical entity. The fact that this entity may perhaps be in principle unobservable is, however, admitted as a possibility. ii) Chemical complexes can be passed from entity to entity and the effects of this can be studied, but this does not seem true of entelechies. iii) Entelechies are supposed to be immaterial and non-spatial, so it is difficult to understand what it means to say that all living bodies are a compound of material structure and entelechy (Broad 1925, 58-59).

Substitute 'mind' or 'soul' for 'entelechey' in all instances where it appears in the preceding paragraph, and you have a standard list of the objections to Dualism. But Broad resists such a straightforward rejection of that theory. The primary reason for this, I think, involves the first objection mentioned above. Broad would admit that no such entity as a mind has ever been scientifically observed, but would claim that this isn't the only source of our information about minds. Broad would argue that we do, in fact, have introspective evidence that we do have minds, and the nature of introspection is such that it provides us with incorrigible proof that minds exist. This does not prove that minds are a separate, immaterial substance but it certainly renders that position more plausible. It is Broad's reliance on our faculty of introspection which moves him to deny mechanistic
psychological theories, and it is part of my goal in this chapter to show that this is perhaps the most important difference between Broad and both Ryle and Dennett.

e) An emergent theory, argues Broad, is one in which certain wholes are noted as being composed of constituents in a particular relation to each other and as possessing certain properties, where these properties cannot in principle be deduced from a complete knowledge of the properties of the constituents in isolation (or in different relations to one another)(Broad 1925, 61). One possible case of an emergent theory occurs in chemical composition, since the properties of chemical compounds, so far as we know, cannot be predicted from knowledge of the properties of the chemical elements of which the compound is composed. The biological question can be made to seem analogous once we look at living organisms as 'higher order compounds' (i.e. compounds composed of compounds), and one can once again claim that we are unable at the present time to predict the behavioural characteristics of organisms using knowledge of the properties of the chemical compounds of which these organisms are composed (Broad 1925, 64-67).2 This, coupled with the claim that our inability to predict these characteristics stems from an impossibility in principle, is Emergent Vitalism.

The italicized phrase in the paragraph above is the most troublesome from the point of view of an emergent vitalist, for it is always possible to account for our inability to predict in terms of an inadequate understanding of the underlying structure and relations of the elements. We may be unable to do so at any moment in the history of scientific inquiry, but this does not necessitate a radical reconceptualization of the nature of the universe, especially in light of past successes of explaining characteristic behaviour of an object in terms of its constituent parts. The emergentist needs a clear-cut case of an emergent property or law in order to make his world view more plausible, and Broad thinks he has found such laws at the psycho-physical level, since he believes that secondary qualities such as colours and smells are unpredictable from mere knowledge of

2Regarding Broad's discussion of emergent properties in chemical composition, it should be noted that this has turned out to be false for some properties, and I'll briefly discuss the implications of this in section f of this chapter.
the microstructure of the objects which possess these additional properties. I shall return to this revealing argument later, but for now we need only realize that there appears to be no compelling reason to opt for emergent vitalism over biological mechanism, if we restrict ourselves to biological questions only.

In order to strengthen the emergent vitalist's case (which in turn will make the general emergentist picture seem more plausible) Broad gives an argument intended to show that the Biological Mechanist picture entails a troubling Deistic assumption, to which the emergentist picture is not committed. The argument involves the analogy that mechanists bring to biological organisms, in which those organisms are compared to artificial machines. The only systems we know to be machines have arisen as a result of design and arrangement by a mind, Broad states. Also, "natural machines" (biological organisms, ex hypothesi) arose from matter that was not formerly a machine. The next is the key premise: there is no reason to suppose that matter can spontaneously fall into the extremely special configurations needed for the resulting mechanisms to behave teleologically. Broad concludes that the intervention of a mind which designs and arranges matter in the form of natural machines must be postulated by the biological mechanist.

Ignoring the troublesome use of the word 'mind' in the first premise, the fault in this bad inductive argument is in the third premise. In fact, we do have reason to believe that matter can fall into the special configurations needed for teleological behaviour. The primary unit of any evolutionary theory, the single self-replicating unit, can be so simple as to have arisen over a long period of time provided that there is enough random recombination of its constituent parts. Once this unit has appeared, its defining 'interest' in self-replication, access to and competition for certain limited resources, and an imperfect replication procedure will get the evolutionary process rolling. More complex biological organisms will be the inevitable result, and they can indeed be thought of as 'natural machines' which behave teleologically, but importantly we can clearly see that there is no need to posit a designing mind which provides the teleology.
Broad's argument for Emergent Vitalism relies on the unwarranted conclusion that the biological mechanist must posit a 'first designer', since he claims that emergent vitalism doesn't imply this troublesome Deistic assumption. The emergent vitalist may dispense with the machine analogy and argue that although matter is not disposed to arrange itself in the form of natural machines, it may be so disposed to fall spontaneously in the form of organisms (which are not machines for the emergent vitalist, but instead are viewed as complex systems whose characteristic behaviour is not mechanistically explicable). But once we reject the conclusion for which Broad has argued, the motivation for preferring the emergentist position over the mechanistic one vanishes. Additionally, the mechanist picture implies that the emergent claim that matter has a tendency to arrange itself in the form of organisms is equivalent the mechanist claim re 'natural machines', for that is what an organism is on her view (i.e. a machine). The only difference between the two theories is the thesis about 'in principle unpredictability' advanced by the emergentists and, as we noted before, a mechanist will always be able to argue for incomplete knowledge of the constituent parts of the allegedly emergent characteristics of the organism in question.

f) Having shown that Broad has failed to give us any reason to prefer emergentism over mechanism in the biological arena, I shall examine more closely his arguments in this chapter that the general theory of emergence is rendered probable by the existence of genuinely emergent properties at the psychological level.

According to Broad, the emergentist view allows for two different types of fundamental law. An intra-ordinal law is one which connects the properties of the same order or level, whereas a trans-ordinal law is a law which states that a certain characteristic of a higher order aggregate or compound always occurs when the elements of the next lower order are arranged in a certain way and that this characteristic is not
deducible in advance from even the most complete knowledge of the structure of the elements at the lower level (Broad 1925, 77-78).

One type of trans-ordinal law is the trans-physical law, which is any law which connects movements of microscopic particles on the one hand with either the existence or the appearance of secondary qualities on the other. The trans-physical law is a trans-ordinal law connecting the psychological level with the biological level, and Broad argues that here we have a trans-ordinal law that is necessarily emergent. There are two controversial aspects to Broad's conception of a trans-physical law. One is the fact that Broad believes that you can make a distinction between actual or existent secondary qualities and the mere appearance of secondary qualities. The other is the claim these 'seemings', whatever their status, are not deducible from any amount of knowledge of the microscopic structure of the organism possessing them and are therefore emergent properties of that organism.

Broad seems to think that there are two metaphysical possibilities regarding the status of secondary qualities. Either secondary qualities are actual properties of the object itself (in one of two ways) or they are not properties of the object at all, but only seem to be. The first possibility subdivides, for it may be that the object possesses some secondary quality only when an observer is "in direct cognitive contact" with that object, or that the object possesses that secondary quality independently of any observer (Broad 1925, 49). In fact this second possibility admits of two forms as well, for it may be that although no physical object possesses the secondary quality, there is something else (such as a sensation) which does possess it. On the other hand, it may be that there is nothing which has this property; secondary properties would thus be mere appearance in some more ultimate sense.

I believe that we can make some progress in sorting through this array of logical possibilities by recognizing that there are different levels of explanation involved and that

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3Broad also seems to allow for characteristics to be 'reducible' in the sense that they are characteristics of a particular order but could in theory be deduced from the structure and constituents of the aggregate and laws of a lower order. But the laws themselves would be intra-ordinal (Broad 1925, 78).
keeping straight about this will enable us to say that there are, of course, secondary qualities but these are not the kinds of things that will be possessed by an object (physical or otherwise) in the way that the primary properties are. I shall deal with colour in the following discussion, but the argument is meant to apply to the other secondary qualities as well. From the point of view of physics, objects are not coloured, but they do possess spectral reflectance properties (i.e. certain wavelengths of light will be reflected by the object, while the rest are absorbed) which are unproblematically 'primary', objective properties of that object. When the reflected light from an object reaches the perceptual system of a human being, a complex process is set in motion which results in various events happening all over the brain. Eventually, this might lead to an overt behaviour such as speech, in which the subject utters 'I see a red ball'. From this perspective, there is nothing anywhere that has the property 'red'. The light has a certain wavelength but is not coloured, nor are any of the processing events coloured red, nor is the speech utterance red.

It is now tempting to postulate that the colour 'red' is a property which emerges when all this brain activity yields a sensation. This must be where the 'red' is; it is a property of the mental image before the mind of the observer. But this commits us to a Cartesian picture of some sort, and Broad is certainly a Cartesian to this extent at least, for he fails to see that this is not the only option. If we deny that there are any such things as sensations, we can still say that there are red things, namely those things in the world which cause us to utter sentences such as 'I see a red ball'. In this sense, colours are properties of things in the world, and this is not in conflict with the earlier claim that physics only allows for spectral reflectance properties.

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4 Typically, sensations are regarded as mental phenomena, but Broad's analogue, sensa, have some sort of mid-way status between mental and physical, as he explains in Chapter IV of MPN. I'll have an opportunity to discuss this curious move shortly.

5 Ceteris paribus, I hasten to add. A white ball in red light might cause us to utter the same sentence. Note, however, that this phenomenon would have to be explained (ultimately) by reference to a red thing, namely a red light-filter or similar device.

6 It is interesting to note that it is now well known that there is no straightforward mapping between spectral reflectance properties and colours as we see them, so it will be unsatisfactory simply to identify colours with
But for Broad, the 'seeming' is somehow ontologized, and this extra thing must be recognized to be completely lacking from even the most complete explanation of a perceptual process at a sub-psychological level. This brings us to the second controversial aspect of Broad's conception of a trans-physical law. Trans-physical laws are necessarily emergent for Broad, and in this important respect they differ from other trans-ordinal laws.

Within the physical realm it always remains logically possible that the appearance of emergent laws is due to our imperfect knowledge of microscopic structure or to our mathematical incompetence. But this method of avoiding emergent laws is not logically possible for trans-physical processes...

(Broad 1925, 81)

It is, in fact, logically possible that any law which appears to be of the emergent type appears so only because we don't know all the details of the microstructure. This is what makes the emergentist's position seem unstable. For example, Broad frequently uses an example from chemistry to illustrate a possible case of an emergent law. With regards to chemical compounds, he argues, it might be the case that the properties of the compound are in principle unpredictable from even a complete knowledge of the properties of the chemical elements of which the compound is composed. Thus the law connecting the particular structure and arrangement of the elements of that compound and any property of that compound would be of the emergent type. This may have seemed plausible at the time, but there is now some scientific evidence to suggest that properties of chemical compounds can in fact be predicted from knowledge of the microstructure of the elements at the quantum mechanical level. If this is so, then any laws connecting properties of spectral reflectance properties. For an interesting discussion of the evolutionary basis of colour, see Dennett (1991a) and Akins (1989, 1990).

7. I am claiming here that this seeming cannot be accommodated by a causal picture at the sub-psychological (e.g. neurophysiological) level. This may be seen to be at odds with Broad's claim in chapter IV that sensa are part of a causal explanation of perception. But although Broad does say that sensa are not mental properties or events, he also makes it quite clear that they are not physical either (Broad 1925, 181). Broad's causal theory of perception is therefore problematic because the metaphysical status of one of the crucial sub-psychological elements is wholly mysterious. I also believe that this picture contains some unmistakably Cartesian intuitions, which I will point out later in the chapter.
compounds and the elements of which they are composed would be a straightforwardly mechanical law, in Broad's terminology.

The more progress of this kind in the sciences, the less likely it seems that a global emergentist picture is at all plausible, but Broad maintains that between the biological and psychological level, there will be laws that are necessarily emergent. What is the specific nature of this level which necessitates emergent laws, in Broad's view, whereas in all other areas he admits that only a much weaker claim can be made? Broad makes it quite clear that it is the existence of secondary qualities which necessitates emergent laws in the following passage.

The resulting compound contains three atoms of Hydrogen to one of Nitrogen; it is a gas readily soluble in water, and possessed of a pungent and characteristic smell. If the mechanistic theory be true the archangel could deduce from his knowledge of the microscopic structure of atoms all these facts but the last. He would know exactly what the microscopic structure of ammonia must be; but he would be totally unable to predict that a substance with this structure must smell as ammonia does when it gets into the human nose. The utmost that he could predict on this subject would be that certain changes would take place in the mucous membrane, olfactory nerves and so on. But he could not possibly know that these changes would be accompanied by the appearance of a smell in general or of the peculiar smell of ammonia in particular, unless someone told him so or he had smelled it for himself. (Broad 1925, 71)

The notion that the existence of secondary qualities creates an in principle barrier to the extent to which we can give mechanistic explanations in science is not one that has disappeared. Frank Jackson's 'Mary the Colour Scientist' thought experiment is a contemporary attempt to appeal to the same intuition. The trouble with both versions is that although both examples do a passable job at revealing just exactly what our pre-theoretical intuitions about such cases are, they offer no actual argument to show that

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8 In brief, Jackson's thought experiment supposes that Mary knows all there is to know about the physical and neurophysiological facts involved in colour and colour perception in humans but, due to a carefully controlled environment, she has never actually seen any coloured objects. Jackson argues that, when confronted with a tomato for the first time, she will have learned something new (i.e. how red looks) despite ex hypothesi having all the objective, physical information there is. Jackson concludes that any objective description of physical processes of perception will therefore be incomplete, since they lack this additional knowledge of the way in which a given perceptual process appears to an observer. (Jackson 1982)
these intuitions are right. In Broad's case, this failure has the further effect of leaving his claim that trans-physical laws are *necessarily* emergent unsubstantiated.

A mechanist could, for instance, respond to the above passage by claiming that the smell of the gas is completely captured by a precise description of the way in which our olfactory system interacts with exposure to the gas and the further effects that this process has upon other specialized subsystems in the brain. She could claim that the apparent explanatory gap between physical processes and the experienced smell can in principle be bridged given a more complete knowledge of the actual processes that are going on. Broad has offered us no reason to rule out this possibility, so it remains a curious fact that he has claimed that trans-physical laws are not susceptible to the charge to which, by his own admission, other trans-ordinal laws are susceptible. That is, the other trans-ordinal laws may only *appear* to be emergent, due to an incomplete knowledge of the underlying structures and processes, but this type of trans-ordinal law must necessarily be emergent due to the existence of secondary qualities. But we have just outlined a scenario in which these secondary qualities could be given a complete description in terms of underlying processes and structure. There must, it would appear, be some other motivation for thinking that the case of trans-physical laws is different in this way.

I think that this difference must come from Broad's commitment to a different kind of knowing, namely knowing by introspection. We just know, by examining our sensations of smell and colour, for instance, that there is an aspect of any perceptual experience which is inescapably subjective and hence will elude any objective, mechanistic attempt to capture it. This assumption must have seemed so obvious to Broad that there was no need even to argue for it or explicitly mention it at all. But the assumption conjures up a picture of the nature of persons and of knowing that a mechanist need not accept. The picture is one where the knowing mind stands in a *direct* relation to a class of objects, Broad's *sensa*, which provide us with our only, though indirect, link to the possibility of knowledge of the external world. The secondary
qualities to which Broad refers are properties of *these* objects (although he does leave open the possibility that they are also properties of the external world in either of the two ways mentioned above) and since we have direct, incorrigible access (via introspection) to our sensations, these qualities must be genuine phenomena. Moreover, any attempt to give a complete explanation of these properties in terms of the structure and relations of physical objects must be doomed to failure, because the property is not merely (or not at all) a property of physical objects.

Most contemporary mechanistic materialists would deny the very existence of such inner quasi-mental objects (the *sensa*), claiming that they are a theoretical leftover from an outdated epistemological picture which is essentially Cartesian in its details. *A fortiori*, there can be no direct introspective access to such non-existent entities of the kind Broad assumes in his argument that trans-physical laws are necessarily emergent. Broad, it should be noted, doesn't have to accept this new epistemological picture, but as he fails to give any argument rejecting it, we must allow that the mechanist is permitted to have the same attitude towards alleged trans-physical laws as Broad allows that he may have to other trans-ordinal laws. That is, although the law may appear to be emergent in some respects at a given time, it does so only because we lack complete knowledge of all the contributing elements which are responsible for properties at the psychological 'level'.

In this section I have outlined Broad’s arguments for his preference of the emergentist picture over the mechanist one. I have shown that his arguments fail to

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9 The traditional picture generally regards sensations as specifically *mental* events, and it must be admitted that Broad's *sensa* are meant to form a class of events that are neither physical nor mental. However, it is the *sensa*, and not the physical objects themselves, to which we have access, although this access is apparently not infallible (Broad 1925, 284, 296). Again, I must stress that Broad has given insufficient justification for the view that we should take this new 'hybrid' class of events seriously as anything more than a convenient *ad hoc* method of bridging the causal gap between the mental and the physical. Regardless, I believe that there are enough similarities between the properties of sensa and the properties of traditional sensations to motivate my view that Broad has not really rejected this picture.

10 But if they aren't properties of physical objects, and Broad professes to be a materialist, what exactly are they properties of? Can something be a property of a characteristic? (Broad claims that mentality is an emergent characteristic of physical objects.) How does a characteristic differ from a substance? Here is what I believe to be a most problematic tension for Broad. Do his introspectionist assumptions reveal his materialist theory of mind to be Dualism in disguise? I'll have more to say on this topic later in this chapter.
secure his strong conclusion that some laws, namely the trans-physical ones, are necessarily emergent. In so doing, I have eliminated any motivation for preferring the emergentism over a mechanist doctrine of some description. In the next chapter, Broad moves the discussion to the psychological level and canvasses the different arguments concerning the relation between body and mind. Many assumptions, both implicit and explicit, are revealed in this chapter, and I shall show how they underline the important differences between Broad's approach to philosophy of mind and the direction in which the field has moved in more recent years.

3) Body and Mind

a) Broad is concerned in chapter three of *MPN* to determine what can be said for and against the notion of interaction between body and mind from both the philosophic and scientific points of view. His tentative conclusion is that the arguments against interaction are fallacious, but he admits that there is a possibility that a theory of one-sided action of body on mind is true, although the converse one-sided theory of mind on body is too fraught with difficulties to be regarded as a genuine possibility.

Unfortunately, the explicit assumptions of this chapter drastically lessen its impact from a contemporary point of view:

> We start then by assuming a developed mind and a developed organism as two distinct things, and by admitting that the two are now intimately connected in some way or other which I express by saying that 'this mind animates this organism'. (Broad 1925, 96)

From a post-Ryle perspective, the big mistake has already been smuggled into this assumption, namely that 'body' and 'mind' are two terms which belong to the same logical category and can thus be legitimately used in this way, such that causal relations (here, the notion of 'animation') can be said to hold between the referents of these terms. The whole framework on which Broad bases his discussion in this chapter is therefore rejected by Ryle, so the conclusions reached therein will have no force unless he can defend his adoption of these preliminary assumptions. As these assumptions are in play only in this chapter and don't necessarily reflect Broad's actual views, it isn't particularly fair to lay
too much stress on this fact. We can see Broad as engaged in a task of giving a fair and clear assessment of the merit of arguments that can be considered if these commonsense assumptions are in place. Instead I want to discuss some of the arguments considered in this chapter in order to uncover some implicit assumptions (Broad's assumptions) that are revealed through his handling of the issues.

b) In his examination of the philosophical arguments against two-sided interaction, Broad confronts the argument that a causal relation can exist only between events that form a part of a single substantial whole. Physical events and mental events are often thought to be parts of separate wholes (i.e. an extended spatial one and the contents of a single mind, respectively), and this would render them incapable of affecting one another. In his response to this criticism, Broad declares that we have evidence that there is an intimate union between the two realms, namely the ‘animation’ of one realm by the other, and that this is enough to qualify the mind/body, as a substance of its own. What Broad calls the animation of a body by its mind is presumably a way of saying that there are very intricate causal relations holding between mind and body, and that these justifiably allow us to consider the mind and its body as a single substantial whole. This, however, leads us to ask questions about the nature or status of such a hypothetical substantial whole. It is patently neither merely mental nor physical but must either be thought of as mental/physical or a third sort of thing entirely.11

In the next paragraph, he ventures another possibility:

We must, moreover, admit the possibility that minds and mental events have properties and relations which do not reveal themselves to introspection, and that bodies and bodily events may have properties and relations which do not reveal themselves to perception or to physical and chemical experiment. In virtue of these properties and relations the two

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11The former possibility is interesting in that Broad has (as I've already discussed) assigned such a status to his sensa in chapter IV. It is apparent that sensa and the type of mental/physical substance being discussed here can't be identified, since the former seems to play a causal role between the mental and the physical, whereas the latter is meant to be the mind and its body considered as a single substantial whole. Nevertheless, I suppose that these two postulated entities are of the same general type, and that given that Broad is only canvassing possibilities in this chapter, the fact that he considers sensa to be conceivable theoretical constructs would justify postulating this type of entity as well.
together may well form a single substantial whole of the kind which is alleged to be needed for causal interaction. (Broad 1925, 100)

What appears to be two substances is in fact but one substance, although the properties and relations that hold between mind and body (thus uniting them) are forever beyond our grasp, being undiscoverable by either perception or introspection. Such supposed ‘facts’ as these, in principle undiscoverable by any means imaginable, are dubious entities, and I think we can join Dennett (and practically everyone else) in denouncing them. 12

c) In response to an argument purporting to show that voluntary action is not a clear-cut instance of mind causally interacting with body (such as when one wills that she move her right arm), Broad claims that we can in fact be fairly confident that this is genuine causal interaction. What legitimates this claim for Broad is the fact that "the peculiarity of a volition as a cause-factor is that it involves as an essential part of it the idea of the effect" (Broad 1925, 102). The suspicion here is that the introspectionist assumption that we considered in the last section is once again doing work, and this is shortly confirmed:

We cannot detect any analogous connexion between cause and effect in causal transactions which we view wholly from outside, such as the movement of a billiard-ball by a cue. It is therefore by no means unreasonable to suggest that, in the one case of our own voluntary movements, we can see without waiting for the result that such and such a volition is a necessary condition of such and such a bodily movement. (Broad 1925, 103)

Although this paragraph does allude to a genuine pre-theoretical intuition on our part that voluntary action has a different motivating source than (for instance) reflex action, this argument has force only if you're already committed to the idea that we are composed of both a mind and a body (allowable within the confines of this chapter) and that we have direct access to our mind such that we can distinguish its causal role in voluntary action. The latter claim is not explicitly assumed at the beginning of this chapter and requires

12 "Putative facts about consciousness that swim out of reach of both 'outside' and 'inside' observers are strange facts indeed" (Dennett 1991a, 133).
some argumentative substantion, and this Broad has failed to give here.\textsuperscript{13} This brings us to one of the most important assumptions that Broad makes, namely his notion of the nature of the causal relation between mental and physical events, a notion that a post-Rylean would find naive.

d) This idea is implicitly expressed in his discussion of the argument from the principle of Conservation of Energy (ACE) that the mental can't affect the physical since there is no detectable loss or gain of energy in any alleged mental/physical causal transaction. Broad replies that minds in fact don't add or take away energy from physical systems, as all energy transactions take place within the physical system itself. He believes that the conservation of energy principle has nothing to do with the denial of interaction, since the premise doing the work is the idea that all causation implies a transfer of energy from one entity to another. This premise is not self-evident, says Broad, and so the denial of interaction cannot be secured by these means (Broad 1925, 107-108).

I will not take issue with Broad's treatment of ACE. Let's assume that he has secured that ACE does not imply the falsity of mind-body interaction. Broad goes on to claim that we do need to postulate such mental events as volitions in order to explain why a particular bodily movement occurred (among the myriad physically possible bodily movements- i.e. those in accord with the conservation of energy principle). It is this claim to which I would like to draw attention.

A post-Rylean would argue that Broad is illegitimately conjoining two different realms or levels of explanation, namely the explanation of a bodily movement in terms of rational action, and the explanation of that same movement when considered as a physical system. A physical level explanation will be in terms microscopic processes (say at the chemical level) which result in the macro-level bodily movement, and there will be no

\textsuperscript{13} Nor does the chapter on Introspection in MPN provide this support, as I'll have an opportunity to discuss in the final section of this chapter. Broad perhaps can say that we have access of some kind to certain inner states, I'll argue, but he has nowhere given us any proof that we know the nature of these states as being specifically mental.
reference to *reasons* for action at all. On the other hand, if we consider this movement in
the context of voluntary action by a rational agent, our explanation will be couched in the
language of belief and desire.

Broad's mistake, which explains in what way he has illegitimately conjoined different
levels of explanation is what Ryle refers to as a category mistake. He has placed terms
like "volition" in the same logical category as manifestly physical processes such as
chemical action, such that causal relations hold between them. Broad seems to see the
problem in this way:

Chemical event A + Chemical event B+ Mental event C (the volition)
produces bodily movement X.

Any bodily movement that lacked the causal event C would be merely a reflex action.
Broad thinks that a volition is an event in the same way that a chemical reaction is an
event. Ryle was one of the first to point out that calling an action voluntary did not imply
a reference to an actual event occurring in the hidden arena of the mind (Ryle 1949, 72).
To conjoin chemical and mental terms in this way, such that these straightforward causal
relations should hold, is to abuse the meanings of the terms, although the grammatical
form of sentences using these terms have a certain superficial similarity.14 Once we
recognize that volitions are not physical events, we won't be tempted to consider them as
necessary features of any physical explanation. While it is true that a physical description
of an action (i.e. as a *bodily movement*) will never explain why that action (described as an
*action*) occurs, rather than any of the other bodily movements in accord with the
conservation of energy principle, this is not an indication that the explanation is
incomplete. Physical explanations are simply not attempts at an answer to that type of
question, since there is no implicit reference to what is the rational course of action for an

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14 What Ryle believes is implied by calling an action voluntary will be discussed in the next chapter, as will
the problems that arise when we do give voluntary actions the traditional Cartesian treatment. I have not
attempted here to establish the truth of the claim that volitions are not causally relevant to physical
explanations, just that this is a fundamental difference in approach between Broad and later thinkers like
Ryle and Dennett.
agent with a certain set of beliefs and desires, which is necessary for an explanation of why an individual performed one physically possible action instead of another.

e) Broad's introspectionist assumption plays a key role in some of the remaining arguments for interaction in this chapter. For example, Broad considers an argument that "processes involved in deliberate action do not differ in kind from those involved in reflex action; they differ only in degree of complexity" (Broad 1925, 110-112). This kind of anti-essentialist, non-absolutist viewpoint is commonplace today, and in fact Broad's description of the position's explanation of variable action to similar stimuli in terms of variable resistances in the synapses is strikingly similar to the basic idea behind connectionist models. But Broad rejects this picture because he thinks that it involves a misunderstanding of the nature of the relation that holds between mind and body. This picture, which he describes as a system of afferent and efferent nerves ending in 'telephones' (which are directly connected to the mind) located spatially in a 'hole in the brain', is interesting in that it has many similarities to the 'Cartesian Theater' which Dennett is concerned to reject (Dennett 1991a, 106). Broad claims that this mistaken view has arisen because philosophers have confused "a gap in an explanation with a spatio-temporal gap, and to argue from the absence of the latter to the absence of the former" (Broad 1924, 111). On the contrary, claims Broad, there need be no spatio-temporal gap at all, despite the existence of an explanatory gap, since to assume that there is would imply that minds are like physical objects and somehow obey mechanical laws.

Ryle was the first to show that, although philosophers stopped thinking of the mind in terms of mechanical action, they continued to treat it as a 'para-mechanical' entity, which obeyed quasi-mechanical laws, different from those governing the physical world, but

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15 In brief, the 'nodes' in a connectionist system are 'weighted' differently at any given time depending on the past history of input into the system. The way in which this is accomplished is entirely algorithmic or 'mechanical'.

16 We shall see, however, that Dennett is not merely saying that there is no actual center in the brain upon which all the nerves converge, but that there is also no functional center where input is 'presented' to conscious experience. Although Broad rejects this 'telephone' analogy, there is plenty of evidence that he is still committed to this second proposition. Of course, the extent to which Broad can be considered a Cartesian materialist needs to be addressed, in the light of his emergentism, and this will be discussed in the section dealing with chapter fourteen of MPN.
similar in form. That Broad thinks something along these lines is revealed in this passage where he says "the mind and its actions are not literally in Space at all, and the time which is occupied by the mental event is no doubt also occupied by some part of the physiological process" (Broad 1925, 111). That is, there is a series of mental events that is analogous (possibly running parallel) to physical events, occurring in time alongside physical processes but distinct and separable.

But what makes us think that there is such a series of events at all? Why do we think there is an explanatory gap? Here is Broad's answer:

There is a clear introspective difference between the mental accompaniment of voluntary action and that of reflex action. What goes on in our minds when we decide with difficulty to get out of a hot bath on a cold morning is obviously extremely different from what goes on in our minds when we sniff pepper and sneeze. And the difference is qualitative; it is not a mere difference of complexity. This difference has to be explained somehow and the theory under discussion gives no plausible explanation of it. The ordinary view that, in the latter case, the mind is not acting on the body at all; whilst in the former, it is acting on the body in a specific way, does at least make the introspective difference between the two intelligible. (Broad 1925, 112, emphases added)

First of all, we must note the presence of the introspectionist assumption once again. Although one must be careful not to attribute to Broad any of the views that he presents and evaluates in this chapter, I do believe that the introspectionist assumption is actually Broad's view and not merely an artifact of the explicit assumptions of this chapter. He uses this assumption to motivate his evaluative judgments of the arguments in this arena, since he believes that the "clear introspective difference" is something that all disputants must accept. I believe that he is wrong about that. As it does elsewhere, this assumption plays a crucial role in the argument. We just flat-out know that there is a real difference between voluntary action and reflex action, Broad claims, and moreover this is a difference in kind, not degree. How we know this, and what we are knowing when we do know this, is not dealt with by Broad, but he believes that this unassailable fact just can't be dealt with by a mechanistic theory like the one being canvassed here. For Broad, the
presence or absence of a mental accompaniment to an action does \textit{prima facie} provide an explanation of our pre-theoretical intuition that there is a clear difference between reflex and deliberate actions, one that can motivate claims of moral responsibility, among other things.

Also note that Broad begins by assuming that every action, whether reflex or deliberate, has a mental accompaniment and that there is a real difference in the mental accompaniment depending on the type of action. But this is an illegitimate assumption in the circumstances, since the complexity argument being considered is claiming that all action can be given a mechanical explanation in terms of more or less complex nervous structure, and there is then no need for hypothesizing a mental accompaniment. The introspectionist assumption about direct knowledge obtained by inner self-examination is what Broad is relying upon to ground his claim that voluntary actions must involve the presence of a volition. I think that introspective evidence can provide some motivation for the view that there is some difference between reflex and voluntary actions, but \textit{not} that there is a difference in kind between them. The complexity argument's mechanistic theory could, in principle, provide us with an explanation of the difference between the two kinds of action that shows why they seem qualitatively different while yet differing only in amount of complexity.

Broad does admit that the complexity argument, while far from securing a denial of mind/body interaction, does constrain the way in which the interaction can be accomplished. The Cartesian materialist (to speak anachronistically) kind of picture that Broad rejects is replaced by a picture in which the mind acts on the body by influencing the resistance, either positively or negatively, at synaptic junctures in the brain. Reflex actions are consequently those actions in which the mind is incapable of influencing the synaptic strengths, whereas deliberate actions are those in which the mind has much influence and control. The \textit{ad hoc} nature of this hypothesis is immediately apparent, and in fact this concession to the complexity argument supporters is not so harmless as Broad would like to think. In a footnote above, I have already alluded to the close similarity
between Broad's account of brain function and the basic structure of connectionist models of cognition. One of the interesting features of these models is that the 'weighting' of the various synaptic strengths can be algorithmically manipulated in such a way that the system can be said to 'learn' to respond appropriately to various input stimuli. Thus the need for intervention by the mind in order to insure 'appropriate', as opposed to merely more varied (Broad makes this point explicitly), response is obviated. As is often the case in these debates, the mechanist position has the resources (either in theory, or as the case is here, in actual application) to offer a coherent defense of his position, and the introspectionist must fall back on direct intuitive knowledge of mental occurrences in order to find a secure platform from which to criticize the mechanist position. Of course, the mechanist may (and often does) deny any such foundation of intuitive knowledge, so nothing is accomplished by the dualist's move.

But what of the explanatory gap to which Broad alludes? Even if we don't accept Broad's argument to knowledge from introspection, we can still acknowledge that there seems (to us) to be something more going on when we act deliberately rather than reflexively, and that explanations in terms of complex neural organizations seem not to capture the way in which the difference manifests itself to us. Dennett, for instance, would agree that we intuitively (in the sense of pre-theoretically) feel that there seems to be a difference, and the fact that things seem to us a certain way needs explaining. But this does not entail that we need to take these seemings at face value, as the introspectionist does. The introspectionist ontologizes seemings by making them real entities unto themselves that we can then report and describe. But an opponent of the introspectionist need only explain why we say certain things about our experiences (such as assigning qualities) without being committed to an extra category of mental objects which would indeed, if they were to exist, render any mechanist explanation incomplete since these objects are not part of the ontology of the physical world.

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17Granted, Broad should not be faulted for failing to deal with connectionist models (for obvious historical reasons), but he could have, judging from his discussion of synaptic strengths, seen that it might be the case that adjustments could be made mechanically, and not by means of mental intervention.
Two more arguments remain to be dealt with in this section. The first is Broad's denial of the thesis that body doesn't act on mind. He discusses an instance in which a person treads on a sharp object, and is subsequently the experient of a painful sensation. If we deny that the body can causally influence mental events, Broad claims, we are left with no plausible means of explanation for the occurrence of the painful mental event. As it would require positing various unlikely circumstances in order to explain the sensation, we have reason to believe that the body can in fact influence the mind (Broad 1925, 113-114).

Broad thinks that these two positions exhaust the explanatory possibilities in this case, but of course there is the identity-theory hypothesis that the painful sensation just is a particular physical event in the brain. This is, of course, a fair omission on Broad's part, since this chapter assumes that we are composed of both a mind and a body and an identity of this kind implies that our minds are nothing but certain states of our body. Broad does discuss and reject identity theories in chapter 14 (under the section devoted to a discussion of Reductive Materialism) and I will reserve my criticism of his rejection for the final section of this chapter.

The second argument concerns a claim (attributed by Broad to William James) that evolutionary considerations reinforce the likelihood of causal interaction between mind and body. Although in favor of the conclusion, Broad's criticism of the argument itself reveals hidden assumptions. It is admitted by all sides, goes the argument, that an increase in complexity in minds varies directly with an increase in complexity of nervous systems. If minds made no difference to the survival of its possessors, there would be no explaining the development of creatures with minds which has in fact taken place, so we can assume that minds do in fact interact with the physical bodies to which they are attached in such a way as to further the survival advantages of that creature. Broad criticizes this argument on the grounds that natural selection need not select for or against minds, because they may make no actual difference to the survival of complex bodies, but
are accidental (or perhaps necessary) byproducts of the growth in complexity of the creature in question.

What's interesting is that both Broad and the argument in question assume that it is at least logically possible that a creature may be indefinitely complex and yet lack a mind. Today there are still people who believe that this notion of 'zombiehood' is coherent, but Dennett has challenged this idea, claiming that a creature that exhibits a sufficient amount of behavioural complexity simply is conscious. For Broad, it is clear that this kind of complexity is good *evidence* for the presence of a mind, but minds are something over and above, and separate from, any behavioural effects observable in the creature possessing that mind. Given that Broad admits that minds may be doing no work for the creature in terms of increasing survivability, it must be that the introspectionist position is doing work here in order to insure that he isn't tempted to junk the whole notion of mind altogether in the interests of theoretical economy.

4) The Status and Prospects of Mind

a) The final chapter of *The Mind and its Place in Nature* is perhaps the most important chapter in the book for our purposes, for it is here that Broad presents what he takes to be the definitive list of possible theories about the relation between mind and matter, a list of *seventeen* separable theories. He proceeds to prune this list throughout the chapter and settles on one theory, emergent materialism, as the most likely candidate for the correct theory of mind's place in nature. In this section, I'll present the list and criticize Broad's claim that it is all-encompassing. Then, I'll work through some of the arguments that Broad employs to remove (illegitimately and prematurely, I'll argue) some of the possible theories from consideration. I'll expose some of the underlying assumptions that drive these arguments.

First, a few of Broad's terms should be introduced, since it is primarily by using these terms that Broad distinguishes one theory from another. A *Differentiating Attribute* is that which makes a substance of a certain kind. For example, extension might be a
differentiating attribute of material substances. There are two types of *Non-Differentiating Attributes*, those that are emergent in the sense discussed in the second section of this chapter, and those that are reducible, which Broad seems to characterize negatively as those attributes which are non-emergent and non-differentiating. In addition, some characteristics may be *Delusive* in that the characteristic may seem to apply to some class of things, but in fact does not. For instance, according to Broad's theory of "Pure Mentalism", one could hold that mentality is a differentiating attribute but materiality is delusive.

There will not be space to discuss all seventeen theories (and some aren't worth discussing anyway) so I'll concentrate on four specific theories. These four theories are (using Broad's terminology) "Dualism of Incompatibles" (Cartesian Dualism), "Pure Materialism", "Emergent Materialism" (Broad's view), and "Reductive Materialism" (of which Behaviourism is cited as an example).

b) Does Broad's classification scheme match up against actual theories of mind that have been advanced in this century? I think we can clearly see that it can't, and we need look no farther than the two other figures under discussion. For example, Daniel Dennett's *homuncular functionalism* (Rorty 1982, 335; Lycan 1987, 39) would, on the face of it, seem to be a mix of Pure Materialism and Reductive Materialism. In his view, some mental phenomena could be reduced to or explained as physical events, while others would be discarded as, in Broad's terms, delusive characteristics. Dennett's *heterophenomenological method* makes this point clear. Here we start with the subject's beliefs regarding various mental phenomena (derived through a form of Davidsonian radical interpretation from their utterances). From these, we determine which of the items

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18Both authors attribute the view to Dennett.
19Broad characterizes Pure Materialism as the view that mentality is delusive and materiality is a differentiating attribute. Reductive materialism, for Broad, asserts that materiality is a differentiating attribute and mentality is reducible to it (Broad 1925, 610). There is also an aspect of Dennett's philosophy that could be described as emergentist, in that Dennett has been known to say that mental properties are patterns of behaviour that emerge out of interactions at the physical level (Dennett 1991b), but Dennett's brand of emergentism is a much less metaphysically unorthodox doctrine than Broad's, as we shall see in this and the final chapter.
of belief exist as real states of the brain, and of which we need only explain why it seems we have them.20

It appears that Ryle will not fall easily into this theory-classification scheme either. Broad classifies Behaviourist doctrines under the heading of Reductive Materialism, in which mentality is a reducible characteristic and materiality is a differentiating characteristic. But it seems Ryle would disagree with his being called a reductionist of any sort, for he says "the hallowed contrast between Mind and Matter will be dissipated, but dissipated not by either of the equally hallowed absorptions of Mind by Matter or of Matter by Mind, but in quite a different way...The belief that there is a polar opposition between Mind and Matter is the belief that they are terms of the same logical type" (Ryle 1949, 23). The reasons for Ryle's resistance to classification will be dealt with both later in this chapter when we consider Broad's criticisms of behaviourist Reductive Materialism and also in the next chapter.

c) The first thing Broad does is launch an attack against all theories which claim that mentality is a delusive characteristic, on the basis that such theories are inherently self-contradictory. The theories under consideration are the two forms of Materialistic Neutralism, and Pure Neutralism, but the most important of the theories attacked for our purposes is Pure Materialism, which is a theory that might plausibly have its adherents today in contemporary philosophy of mind. Here is Broad's argument:

It is easy to see that any theory which makes mentality a delusive characteristic is self-contradictory. For to say that mentality is a delusive characteristic is to say that it in fact belongs to nothing, but that it is misperceived or misjudged to belong to something. But, if there be misperceptions or misjudgements, there are perception or judgments; and, if there be perceptions or judgments, there are events to which the characteristic of mentality applies. (Broad 1925, 611)

This argument is plainly fallacious, for any theory which claims that mentality is a delusive characteristic, in Broad's sense, will give an account of perception and

20 In chapter three, I will explain Dennett's approach in far greater detail.
judgments (and therefore of misperceptions and misjudgments) in non-mentalist terms. We might, in our everyday language, retain the use of such words as 'perception' or 'judgment', and thereby say things that are strictly inaccurate from the perspective of our new (hypothetical) non-mentalist account of what we formerly took to be mental phenomena. But this will be strictly for pragmatic reasons, and would serve only to give the general idea of what is trying to be asserted, although the price is that strictly the claim is incoherent. So a theory which makes mentality delusive is not self-contradictory, as long as there is a theory, or at the very least the assumption that there is a theory, which provides non-mentalistic explanations for apparently mental terms. Broad is not, therefore, permitted to eliminate any of the theories he mentions which claim that mentality is a delusive characteristic.

However, it occurs to me that there is an underlying problem here, and it has to do with the difference between a reducible characteristic and a delusive one. Broad draws a clear line between these two possibilities, but I think a closer look will reveal that this distinction is untenable, for I believe the choice between saying a reduction has taken place and saying that a certain characteristic is merely apparently so, and that it really doesn't exist at all, will be pragmatic. To update our terms, I think we must accept that the term 'delusive characteristic' is captured by the notion of elimination, which is the current alternative to reduction in theory choice.

One paradigmatic example of elimination is the 'phlogiston' example. It was once believed that when a substance (like wood) burned, it released a substance called phlogiston, and that the departure of this substance is what rendered wood into ash. Nowadays, we have a better understanding of the process of combustion and we would say that there really is no such thing as phlogiston, and there never was. But note that, if we really wanted to, we could perform a reduction here instead. The combustion process does involve a release of gas as well as heat, and we could say that phlogiston reduces to these things. It's just that phlogiston, as originally conceived, is so unlike gas and heat that it seems silly or impractical to maintain this association.
Paul Churchland, perhaps the most famous contemporary eliminativist in the philosophy of mind, holds that in fact there are no such things as beliefs, and that a completed neuroscience will show that there is nothing even vaguely like beliefs in our brains. If this is true, Churchland argues, we will eventually come to see that the term 'belief' should be eliminated in favor of some more accurate successor term derived from the completed neuroscientific theory (Churchland 1981). Others, like Dennett, disagree with him on this count, claiming that beliefs will continue to remain as a valid term in psychology, although our understanding of how beliefs are instantiated in the world will change and grow (Dennett 1991b, 50-51). It is not important to go into details about this particular controversy, but what I do want to point out is that these two positions do not map onto "Pure Materialism" and "Reductive Materialism" in the way that Broad envisioned. It is much more like a continuum of possible theories than two separate poles with no intermediary overlaps. We can place elimination at the far left and straightforward reduction at the far right. Churchland is more to the eliminative side than Dennett, but there is plenty of room to the right of Dennett, since he does in fact take an eliminative stance when it comes to qualia, for instance (Dennett 1991a, 369-370). Jerry Fodor, for example, holds that beliefs will reduce to representational states physically instantiated in the brain, a position which occupies a spot far to the right of Dennett’s on our continuum (Fodor 1987).21 The bottom line is that the choice between elimination and reduction in any particular instance is a pragmatic one, and this is not reflected realistically in Broad's classification scheme.

Broad devotes a lot of space to a criticism of reductive materialism, and more specifically a form of this position which he refers to as Behaviourism. For Broad, behaviourism is the view that "a mind or being a mental process reduces to the fact that a certain kind of body is making certain overt movements or is undergoing certain internal physical changes" (Broad 1925, 612). The kind of Behaviourism Broad is attacking is a

21Also, Dennett says: "Fodor's industrial-strength Realism takes beliefs to be things in the head-just like cells and blood vessels and viruses" (Dennett 1991b, 45).
form which tries to *reduce* mind to behaviour (i.e. minds are nothing but publicly
observable behaviour). This reductive attempt to give an account of minds in terms of
behaviour is an appropriate description of what S. Park calls "ontological behaviourism",
which is meant to refer to those types of theories that attempt to show what our mental
terms actually *denote* (i.e. the ontological behaviourist claims they refer to overt
behaviours, not events in the Cartesian Theatre)(Park 1992, 268). Such theories are
*scientific*, in that they are trying to assert matters of fact. For example, minds are nothing
but observable behaviour, rather than being ghostly events. Ryle has often claimed that
philosophy, unlike science, is (or should be) more concerned with questions of *meaning*,
rather than fact (Ryle 1971, 268). The term "logical behaviourist", which implies that
Ryle "is not taking a stance regarding the status of minds, but is instead taking a stance
regarding the status of *sentences* about minds" (Park 1992, 277–emphasis added), does
justice to this aspect of Ryle's philosophy of mind. However, as Park points out, the
logical behaviourist idea that we should *translate* sentences that include terms that refer
to mental events and processes into sentences that refer to publicly observable behaviour
doesn't jibe with Ryle's explicitly non-denotational theory of meaning (Park 1992, 279).22

It may, therefore, turn out that Ryle's view can't be described as behaviourism in
any sense, and would therefore not be threatened by any arguments that Broad gives in
this section. But what of these arguments? Is Broad successful, for example, in arguing
that "Molar Behaviourism" (which is the view that mental processes reduce to overt
actions plus less overt internal behaviours), is indistinct from "Molecular Behaviourism"
(which claims that mental processes are identified with microscopic changes in the
chemistry of the brain)? He argues that a molar behaviourist will, when subjected to
persistent criticism, be pushed back to adopting the molecular behaviourist position. This
position, he continues, is indistinguishable from straightforward materialism and is
therefore devoid of any theoretical interest. There is some plausibility that a molar
behaviourist would in fact be pushed back in just this way, since this position, as Broad

22This important argument will be expanded upon in the next chapter.
describes it, involves an identification of a mental event with a certain piece of observable or potentially observable (i.e. changes is blood pressure, movements of the throat etc.) behaviour. You can imagine a critic positing a case in which all observable behaviours match and yet we intuitively want to say that two different mental events are going on behind it. For example, one could exhibit all the behaviours associated with crying due to either grief or intense joy. Here, it would be an attractive move to slide from identifying the mental event with an external behaviour (which, in this case, doesn't seem to capture the event uniquely) to an identification with an internal, microscopic brain event.

I will grant that he has shown that molar behaviourism is not distinct from molecular behaviourism (although I will shortly take issue with Broad's claim that he has sufficient reason to reject molecular behaviourism (i.e. reductive materialism) in general). Notice however that any arguments leveled at reductive materialism will fail to touch logical behaviourism, which is primarily concerned with the meaning of our talk about mental states, and not with making factual claims about what, ontologically, mental states really are. Logical or philosophical behaviourism (as it is sometimes called) is not a form of reductive materialism at all, as it claims to be putting forward a truth about the meaning of mental terms or concepts as opposed to revealing a potential scientific discovery.

Molecular behaviourism, as described by Broad, bears a remarkable resemblance to the type-type mind/brain identity theory which became popular a few decades later (See Place 1956; Smart 1959). Broad thinks he has refuted molecular behaviourism because we will never have the evidence required to correlate mental processes with physical events. Broad believes that when we say, for example, "I am seeing a chair" we are asserting an experience. This experience may in fact be correlated with a particular bodily behaviour (physical state) but this is not the grounds for my saying that I'm seeing

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23It is unclear who Broad has in mind as a proponent of this view, but perhaps later psychologists like Skinner and Watson tried to defend such a thesis.
a chair. These grounds are supplied by my experience of seeing the chair. Therefore, concludes Broad, the psycho-physical correlation can't be made and molecular behaviourism can be rejected (Broad 1925, 612-616).

I think that the molecular behaviourist/identity theorist could respond to this criticism by claiming that what you are doing when you say "I see a chair" is reporting that you are in physical state x. If the experience that Broad claims is your grounds for saying that you are now seeing a chair is nothing but your ability to report that you are in a certain physical state, there will be no problem about correlating mental states to physical states, and nothing is being left out. This notion of the identity theorist was attractive, although various critics have shown that the identity theory fails to deal with mental phenomena such as beliefs in an intuitively acceptable fashion, and this led to a shift towards modern-day functionalism (See Putnam 1960).

Broad would reject the molecular behaviourist's response outlined above, and it is apparent that the reason for this is the introspectionist assumption, for he says, "if we confine ourselves to bodily behaviour it is perfectly certain that we are leaving out something of whose existence we are immediately aware in favourable cases" (Broad 1925, 614–emphasis added). That is, our experience may be caused by bodily behaviour, or our bodies being in a particular physical state, but our direct access to it guarantees that we can know that it cannot merely be that physical state.

The Introspectionist Assumption explains why, at the beginning of Broad's discussion of reductive materialism, he declares that there is a fundamental disanalogy between the dualism/behaviourism debate and the the superficially similar vitalism/mechanism debate in biology. Broad argues that, with regards to biology, the only evidence that we have that something is alive is that it behaves in certain ways, so there is no reason to suppose that there is anything else to being alive than this behaviour. But, for Broad, in the case of the present debate we have an extra source of evidence, evidence from introspection, that guarantees that behaviourism is false.
Many contemporary philosophers have come to question this Cartesian picture. We can now say that, although it certainly *seems* that there is something more to our experience than just behaviour, it may nevertheless be the case that it is nothing more than some exceedingly complex state of our brains. As we understand more, we should be able to give an answer both to the question of how any particular aspect of our experience is realized in the brain, and to the equally important question of why it *seems* to us to be more than just mere behaviour.

Rorty has addressed this difference of opinion in Chapter 2 of *Philosophy and the Mirror of Nature*, in which he discusses the state of being in pain (Rorty 1979, 71). Imagine that scientists found that every time C-fibres in the central nervous system were stimulated (artificially), the subject reported a painful sensation. If we extend Broad's thinking to the case of pain, we can predict that he would argue something to the effect that our awareness of pain is independent of any actual behaviour. The stimulated C-fibres may *cause* the pain, but we are aware of the *pain*, not the C-fibres. But there is now the alternative view, which allows us to say that the C-fiber stimulation *is* the pain, and not its cause. When I say "I am in pain" I am (no doubt, unknowingly) reporting the current state of my nervous system, a state which could equally be captured by the sentence "My C-fibres are currently being stimulated". This, in a nutshell, is what Broad's Molecular Behaviourist could have said in response to his criticisms.

So, for many post-Ryle philosophers, there really is no difference between the vitalism/mechanism debate and the dualism/behaviourism debate, although it certainly seems that there is a difference, and this seeming should be explained. Just as in the case of biological mechanism, our decision that something has a mind is best seen as a belief in the evidence, and *not* a conclusion from the evidence.

I'll discuss Broad's treatment of dualism and emergent materialism together, for his handling of these two theories reveals the central problem with Broad's philosophy of

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24Note that I am *not* saying that these two sentences mean the same thing, but only that, if it is the case that the state of being in pain is realized physically in the way described, these two sentences succeed in referring to the same state of affairs.
mind. He professedly eschews dualism in favor of emergent materialism, but I detect a
tension between Broad’s claims that he is a materialist and his introspectionist arguments
for the existence of mentality as an emergent characteristic that seems to be in some way
distinct and separable from the physical, despite its close ties to it.

We must go back and re-examine some of Broad’s terminology in order to get a
handle on what exactly the difference is between dualism and emergent materialism. It is
tempting to equate the term 'differentiating attribute' with the notion of substance, since
Broad claims that dualism implies that there are two differentiating attributes, and the
materialist positions canvassed all mention only one differentiating attribute, namely
materiality. Unfortunately, Broad allows for two possible types of dualism, where one
claims that both differentiating attributes are attributes of the same substance, and the
other states that the two attributes are of different substances. This is a little puzzling, for
if the former is possible I fail to understand in what sense these attributes each uniquely
distinguish the substance. But, Broad also says (in his original discussion of the notion of
differentiating attributes in the first chapter) that "every actual substance must have some
special attribute or other which...will make it a substance of such and such a kind" (Broad
1925, 22). I think we can therefore assume that, since Broad mentions only materiality as
a differentiating attribute in his description of emergent materialism, he considers this
theory to be a substantival monist one. If so, it is a very curious form, as I will show that
Broad’s view of mentality includes an undeniably Cartesian aspect. It does seem as if
Broad is saying that there is one substance (i.e. materiality) which, when in the proper
form and reaching a certain level of complexity, leads to the appearance of mentality.
Mentality is said to be an emergent characteristic of materiality, not a differentiating
attribute or substance, and yet it certainly seems to have a special metaphysical status for
Broad. His discussion of an argument purporting to show that mentality and materiality
aren’t compatible characteristics demonstrates this curious feature of Broad’s
materialism.
This argument involves examining whether or not it is possible for one event to be both of a certain shape and size, and one’s particular belief or desire that x (Broad 1925, 626). Broad’s strategy involves examining this as a possible state of affairs, and he concludes that we have no reason to believe that something possessing mentality therefore entails the absence of materiality. This is actually a conclusion that many modern materialists would applaud, but the steps he takes to arrive at this conclusion are suspiciously Cartesian. Broad begins by assuming that an event x could have mental and material characteristics, and immediately makes the claim that the two characteristics of this one event are known in quite different ways (Broad 1925, 626). The mental are directly known only to the person who ‘belongs’ to the event x (when that event is being considered in the light of its mental characteristics). The material characteristics aren’t directly manifested to this person, and strictly speaking don’t directly manifest themselves to anyone since he believes that knowledge of the physical characteristics of the postulated event would be known "only by an elaborate and precarious process of hypothetical and analogical reasoning" (Broad 1925, 626). Broad sees why we are intuitively tempted to reject the notion that something which is mental might also be physical, as we have no direct evidence that could confirm it, but nevertheless claims that we also have no reason to accept the conclusion that what is mental cannot also be physical.

This section should remind us of Broad’s discussion and rejection of molecular behaviourism which we have just considered. There he argued that our grounds for knowing that we are undergoing a certain experience are not the physical characteristics that may or may not be associated with that experience. Here, Broad is saying that our introspective access to the mental characteristics of an event allows us to know that there is something more to this event than mere physical characteristics.

Broad’s notion of introspective access is what creates problems, from a contemporary materialist viewpoint. I think that we can go along with Broad for a certain way and agree with him that the introspection allows us to have access to and report on
certain of our inner states. But one should break with him when he goes on to say that, in
addition, we know these states to be specifically mental states. What motivates Broad's
belief that, in addition to having access to certain states, we also know their nature? Note
that, in the chapter on introspection, he claims that introspection is not exhaustive and
infallible, so it can't be that the nature of introspection is such that it gives us
uncontestable knowledge as to the nature of our introspected states (Broad 1925, 284). I
have already discussed an alternative to Broad's notion of introspection, in which one can
make the claim that introspection is our ability to report that we are in certain physical
states. I think that Broad is not willing to countenance such a possibility because he
remains committed to a quasi-Cartesian picture in which our physical states must
somehow cause our mental states (for Broad, this is accomplished when the constituent
physical states of an organism are in a particular order) but these mental states remain
distinct from the physical states that cause them. We have direct access to our mental
states, or to the mental characteristics of certain events, but the physical states or
characteristics are not accessible to us in this way.  

If you start with this picture (modified in the way discussed in footnote 25) you
will always arrive at the conclusion that introspection permits us access to the mental
characteristics of certain events, and the notion that introspection could be an ability to
report that you are in certain physical states will be inconceivable. However, if you
reject this picture and start from a third person scientific standpoint, you can ask whether
a scientific conception of human beings can do justice to our intuitions about the nature
of our rich and complex inner experiences. Some philosophers of mind have attempted to
do just that, which has enabled them to defend materialist theories of mind which don't

25It should be noted that Broad gives the traditional Cartesian picture a little twist in order to remain in
keeping with his professed materialism. In the traditional picture, mental events are known directly while
their physical causes, are not so known, if causes there be. Here, Broad wants to allow that a single event
can have both physical and mental characteristics, and yet have only the mental ones directly knowable.
This allows him to be a materialist, and still be permitted to make claims about what can be incontrovertibly
be known by direct inspection. Unfortunately, I don't think he can maintain this position unless he can give
a clear exposition of the difference between a characteristic (whether mental or physical) and an event.
Otherwise, this departure from the traditional picture appears to be merely an unargued for ad hoc
convenience.
involve the problematic notion of "in principle unpredictability" of mental properties present in Broad's emergent materialism.\textsuperscript{26} This is why, at root, I think Broad's introspective assumption should be rejected.

Having established to his satisfaction that mentality and materiality are compatible characteristics (and therefore keeping emergent materialism in the running), Broad is still faced with Dualism as an uneliminated possibility. There are two types of Dualism in Broad's classification scheme: Dualism of compatibles and Dualism of incompatibles (identified as Cartesian Dualism). The latter Broad claims to have rejected already, and I believe that he is referring to the section just covered. It seems he can't legitimately claim to have disproved the theory, however, as the conclusion of this section was merely that we have no reason to conclude that the possession of mentality entailed the absence of materiality. No argument was then given to the effect that mentality and materiality were necessarily compatible, which would have been grounds to reject this theory, and one would think then that it is still metaphysically possible that mentality does in fact entail the absence of materiality in one substance.

As to the remaining theory of dualism of compatibles, which states that both mentality and materiality are differentiating attributes which can belong to one substance, Broad rejects it, citing the empirical evidence of complexity as his reason for so doing. Only biological organisms of great complexity exhibit signs of mentality, which suggests that mentality is most probably a reducible or emergent characteristic (Broad 1925, 646). As reasonable as this may sound to many contemporary philosophers, it seems to be a strange argument for Broad to use now, given his frequent use of introspectionist arguments in the past for the purpose of diffusing such empirically-based arguments. One suspects that he is trying desperately to find some plausible grounds to differentiate his curious emergent materialist position from Dualistic positions such as this. Unfortunately, he has yet to succeed in explaining clearly what difference it makes for

\textsuperscript{26}I have also discussed in section 2 why I think the notion of emergent trans-physical laws, which is a necessary component of Broad's emergent materialism, need not be accepted by the mechanist.
mentality to be an emergent characteristic rather than a differentiating attribute, especially when they may in fact both be realized in the same substance.

Finally, Broad tries to give some positive argument for Emergent Materialism, which is divided into two main claims:

i) materiality is a differentiating attribute

ii) mentality is an emergent characteristic

There are two forms of ii), one which makes all forms of mentality emergent, while the other slightly less radical view makes sentience (the lowest form of mentality) a differentiating attribute, while the rest are emergent characteristics of complexes of this lowest form.

The first claim need not be further discussed here, as we can assume that most contemporary philosophers are broadly materialist, but has Broad given any good arguments to the effect that ii) (in either form) is a plausible claim? He offers nothing new here, unfortunately, and recall that we have shown these three things in this section:

i) Broad was premature in rejecting both pure materialism and reductive materialism

ii) Broad’s whole schemata of possible theories is too rigid, and it doesn’t allow for hybrid positions which have both eliminative and reductive elements.

iii) Broad has failed to demonstrate in any concrete way how his position differs from certain Dualistic positions he has rejected.

5) Conclusion

We have just seen how Broad’s introspectionist, Cartesian assumptions have led him to reject promising avenues of philosophical theorizing prematurely. Remember also that I have shown in the second section that his positive arguments for emergentism depend primarily on introspectionist assumptions. In the final chapter I will discuss emergentism in greater detail, but for now we can at least see that it is a mysterious and problematic theory for which Broad has failed to give an adequate defense. In general, it is Broad’s Cartesianism which has led him to adopt a theory which most contemporary philosophers
would find an unsatisfactory placing of mind in nature. In the following chapters I'll examine the work of two philosophers who are committed to eradicating Cartesianism wherever they find it, and have in their different ways made this critical task a cornerstone of their philosophical theories.
CHAPTER TWO

1) Introduction

In many ways, Gilbert Ryle is an excellent foil for C.D. Broad and the kind of philosophy of mind that Broad represented. One need only compare book titles to discover the different paths that these philosophers took. Broad's *Mind and its Place in Nature* clearly implies that mind is a substance of which we can legitimately seek its proper relation to the physical world, much in the same way that we determine the relation of the sun to the earth in the solar system, or the electrons to the nucleus of an atom. Minds, for Broad, have a certain ontological status, and it is up to philosophers to determine what precisely that status is. *The Concept of Mind*, on the other hand, implies that what is under investigation in Ryle's work is a concept (or, more accurately, a family of concepts). In a sense, Ryle is claiming that the very title of Broad's book is misguided: 'mind' is not the sort of word which can be conjunctively or disjunctively connected with any term like 'nature' or 'the physical world'.

Ever since the publication of *The Concept of Mind*, Ryle has often been interpreted as making some sort of ontological claim of either an eliminative or reductive sort. A recent non-behaviouristic interpretation of Ryle makes it clear why those interpretations don't capture the spirit of his philosophical theory (Park 1992). It is tempting to say, for instance, that Ryle would argue, *pace* Broad, that there are no minds or that minds are merely behavioural dispositions, but both these impose on Ryle ontological positions that he has denied, both explicitly and implicitly. I will outline this new interpretation and show why I think we should embrace its message.

*The Concept of Mind* contains both a negative and positive thesis. Ryle is concerned to show us that and how the traditional account of the nature and place of minds is fundamentally flawed. Once he has shown that our mental conduct language (i.e. "our ordinary concepts of mental powers and operations") has been misallocated, there remains the problem how we should re-allocate it (Ryle 1949, 16). Ryle's positive thesis offers a predominantly dispositional account

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1 This book will be referred to as *CM* in the text.
2 See (Armstrong 1965) for a reductionist view of Ryle. He argues on p. 70 that the Rylean project was one in which the mind was identified with its expression in behaviour. For an eliminative interpretation, see (Austin 1970, 47-48).
of mental language. I will give a general overview of both these aspects of his overall thesis in sections three and four, and discuss them in light of the non-behaviourist perspective introduced in the first section.

I give special attention to two crucial areas in which both the negative and positive theses are discussed (in chapters two and six of CM). The former, entitled "Knowing How and Knowing That" is an attack on what Ryle calls the 'intellectualist myth', in which Ryle argues that it is a mistake to regard intelligent actions as a compound of overt actions and inner theorizing. Ryle's claim that all propositional knowledge is dependent on 'knowing how', and not the other way round is examined and criticized. Also, I will look at the alleged tension between Ryle's philosophical theory and representationalist approaches in cognitive science, as this has been the focal point for much contemporary debate.

The latter is contained in chapter six, entitled "Self-knowledge", which is Ryle's attempt to do away with the doctrine of Privileged Access, which claims that people have a form of direct, incorrigible access to their own mental states. I'll examine Ryle's argument that 'consciousness' and 'introspection' can't perform the jobs that they are alleged to do according to the official doctrine. In the process, an apparent tension in Ryle's view is unearthed which others have noticed and criticized. I will argue here that the tension is merely apparent, and this will lead into a brief discussion about the proper conception of philosophical inquiry.

2) A new interpretation of Ryle

In a paper entitled "Re-interpreting Ryle: A Nonbehavioristic Analysis", Shelley Park offers an interpretation of Ryle which places the Concept of Mind in the broader context of the rest of his philosophical work. The resulting interpretation is an "ontologically agnostic" (Park 1992, 267) philosophical position that is resistant to arguments claiming that Ryle is either a reductionist of some sort or else an eliminativist (more specifically, that Ryle is an ontological–or psychological–behaviourist). Further, argues Park, it is not correct to talk of Ryle as a logical behaviourist (as distinct from an ontological behaviourist), for such a position also implicitly relies on a "naive correspondence theory of language" (Park 1992, 279) which Ryle has elsewhere
explicitly rejected. I believe that Park's interpretation is a forceful and intuitively acceptable one, for it allows us to make sense of comments, in both CM and elsewhere, that explicitly distance Ryle from positions with which critics have saddled him. I would also like to show how this interpretation allows us to draw connections to Dennett's philosophy. 3 First, a summary of the arguments presented in the paper will be necessary.

Park outlines the three basic possible positions one could take with regards to the ontological status of minds. These are a) Non-reductive Realism, b) Reductive Realism, and c) Antirealism. The first position states that there are in fact minds, but they exist immaterially. Any ontologically non-reductive theory about minds (such as dualism) would therefore contain (mental) terms which could not be translated into physical terms. The second also affirms the reality of minds, but claims that as minds exist materially, mental language is translatable into physical terms (in any of a number of ways, e.g., Psychological Behaviourism, Central State Identity Theory, Functional State Identity Theory). 4 The third position denies that there are any such things as minds at all, and therefore the question of their materiality or immateriality is a mere pseudo-question. Ryle, if he is taken to be endorsing an ontological position at all, clearly can't be endorsing a), but which of the two remaining positions is consistent with his views is less clear. He has, in fact, been interpreted by some (Park cites Armstrong and Fodor) as arguing for b) (mental conduct is reduced to physical conduct) and by others, such as Miller and Austin, as endorsing c), which entails a full-scale denial of the 'facts' of consciousness.

This pair of possible interpretations is problematic for a number of reasons. For one, Ryle explicitly denies both interpretations in the introductory chapter to The Concept of Mind. He claims to be neither engaged in a reductionist project, nor is he claiming that minds don't exist

3 Additionally, accepting this interpretation allows us to place Ryle more confidently in relation to Broad and Dennett with respect to the notion of pre-linguistic intuitions, a task which will be postponed to the final chapter of my paper.

4 Note that not all forms of functionalism will fit this mold. Dennett's homuncular functionalism, for instance, seems to incorporate elements of both b) and c), in that certain mental features are expected to reduce to brain events, whereas others are to be entirely eliminated. This inability of Dennett's position to be accurately characterized ontologically lends credence, I will argue, to the view that Ryle's and Dennett's projects share many fundamental assumptions. In particular, Dennett explicitly resists demands made on him by other philosophers to come clean on just what ontological assumptions he is making (Dennett 1993, 234) and this lends some plausibility to the claim that he, like Ryle, would prefer to remain ontologically neutral about certain aspects of his theory (most notably his attitude towards the ontological status of propositional attitudes). See (Dennett 1991b)
(Ryle 1949, 23). In addition, there is the apparent problem that Ryle's argumentation fails to establish his alleged conclusion, namely that (ontological) dualism is false. This is because Ryle argues in CM that dualistic claims are absurd. But a demonstration of a claim's absurdity doesn't entail that claim's falsity. What is needed, if this is in fact Ryle's goal, is an argument which shows that dualism is scientifically inaccurate (See Hofstadter 1951, 258-259). It would be strange indeed, and a most uncharitable interpretation of Ryle, if all his arguments were construed so as to make no contact whatsoever with his alleged conclusion (i.e. that ontological dualism is false and ontological behaviourism is true). Therefore, Park concludes, we should reject this pair of interpretations because it embodies the false premise that Ryle is engaged in an ontological project, and consider the interpretation that Ryle's thesis in CM is concerned not with ontological claims about what minds really are, but instead with "the contours of our concept of mind" (Park 1992, 275).

According to this interpretation, Ryle looks to be endorsing what has been called logical or (less often) philosophical behaviourism. This should be distinguished from the ontological (or psychological) behaviourist position just discussed, a view which "denied the existence—or at least explanatory relevance—of inner mental states but didn't need to have a professional opinion concerning the meaning of our talk about such mental states" (Park 1992, 276). Unlike the psychological behaviourist, the logical behaviourist was not concerned with defending or rejecting ontological paradigms. The logical behaviourist project has been described by some as a view which translates all talk about minds or mental conduct into talk about overt or potential behaviour (see Stich 1983, 247; Putnam 1965). This project has been thought to have a referential element, in that the statements denoting or referring to minds are translated into statements referring to observable behaviour. The strength of this interpretation is that it distances him from the explicitly ontological project embodied in psychological behaviourism, and it also makes it clear that Ryle is primarily concerned with issues of meaning, the very topic that Ryle believes separates philosophy from science. But Park goes on to claim that this

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5 Re eliminativism, Ryle says that, although the proposition 'there exists both bodies and minds' is absurd, he is not attempting to show that 'there exists minds' is absurd.

6 "Ryle is saying... that statements which the dualists interpret as referring to 'ghostly' mental acts are really about behavioural events or behaviour dispositions" (Pap 1952, 211).
interpretation won't quite do either, because "the specific theory of meaning attributed to Ryle by this interpretation is mistaken" (Park 1992, 277).

Park points out that Ryle has explicitly rejected a 'naive correspondence' semantic theory which he refers to on the occasion as "the 'Fido'-Fido theory of meaning" (Ryle 1949b). This theory maintains that all expressions have meaning just in case they denote something in the world in the same unproblematic way that the name 'Fido' refers to Fido. Park shows that Ryle has repeatedly argued that mental terms should not be regarded as denoting or referring to "states, episodes, happenings or events, incidents occurrences, processes, performances, operations, or things" (Park 1992, 278). This should indicate that such states or episodes are neither 'ghostly' nor physical. In fact, it makes it difficult to see Ryle as being involved in a project of translation at all, and therefore he should not properly be labeled a logical behaviourist. Park argues that Ryle is advocating a semantic theory which identifies meaning more closely with use. Successful reference or denotation is only one of many ways in which an expression can have meaning, and if a statement which is linguistically about minds fails to be referentially about anything, this does not render this statement meaningless.

Recall the three positions regarding the ontological status of minds that were discussed earlier (i.e. non-reductive and reductive realism, and antirealism). Park now argues that there are also three positions one could adopt regarding our semantic interpretation of sentences about minds. The two realist forms (non-reductive and reductive linguistic realism) both hold that the meaning of sentences about the mind is a function of the denotation of their constituent terms, but differ on their opinion as to whether the object denoted is immaterial (non-reductive realism{L}) or material (reductive realism{L}). The linguistic antirealist (who accepts antirealism{L}) holds that the meaning of sentences about the mind is not a function of the denotation of their constituent mental conduct terms, so the question of whether mental conduct terms denote material or immaterial entities is a pseudo-question (Park 1992, 281-282).7

7It is important to recognize that antirealism {L} neither entails, nor is entailed by antirealism {O}. The latter presupposes a version of reductive realism {L} since, according to ontological antirealism claims about minds are false because there are no such things as minds i.e. the constituent terms fail to denote. Conversely, the linguistic antirealist holds that the success or failure of denotation is irrelevant to the success or failure of a sentence about minds, so antirealism{L} does not entail antirealism{O}. In fact linguistic antirealism allows us to say things about people's minds which are justifiable "independently of questions about denotation" (Park 1992, 282).
Park argues that Ryle's position is a linguistic antirealist one. This is a compelling interpretation for a number of reasons. The most central of these is that the relation between ontology and language is different, depending on whether you adopt a form of Realism (L) or Antirealism (L). For the linguistic realist ontology is prior to language, because of an implicit acceptance of a 'Fido'-Fido theory of meaning (since sentences are judged true or false depending on whether or not their terms successfully denote). Many of Ryle's critics must have assumed the truth of linguistic realism (see Hostadter 1951, 258-259 and Miller 1951, p.271), for it leads to that uncharitable interpretation of Ryle in which he appears to be arguing from the absurdity of dualistic statements about mind to the conclusion that some form of Reductive Realism is true.8

As has already been noted, the above argument is fallacious, since one cannot derive falsity from absurdity. A linguistic realist would assume that Ryle is claiming that ontological dualism is false, because linguistic nonreductive realism (as the linguistic realist sees it) implies ontological dualism, and establishing the falsity of the latter would allow Ryle to claim the falsity of the former. But Ryle believes that the entailment works the other way (i.e. ontological dualism entails linguistic nonreductive realism) so he would never have been tempted to argue for the falsity of ontological dualism. For Ryle, language is prior to ontology, so we can reject ontological dualism only when we can show that nonreductive linguistic realism is unacceptable (i.e. absurd). However, ontological monism awaits the same fate, since Ryle claims that mental terms don't derive their meaning by denoting physical entities either.

A linguistic antirealist interpretation will make the thrust of Ryle's arguments more intelligible and is more consistent with things which Ryle has explicitly said. For on this view, language is prior to ontology, since certain sentences (in this case, sentences about the mind) are not rendered meaningless despite their non-denotational nature. Instead, the term 'mind' and other mental conduct terms derive meaning from our everyday ability to use these concepts, and this is quite independent from any denotational scientific or pseudo-scientific theories which we may construct to explain this ability.9 Park believes that Ryle's core argument against the

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8 There is the further problem that Ryle fails to demonstrate that behaviourism is the proper form of Reductive Realism, as opposed to some alternative theory (e.g. Central State Materialism, Eliminative Materialism).

9 This claim, that our everyday use of the concepts is independent of scientific theory explaining our ability to use them, may be a possible stumbling block for Ryle. Today there is much controversy on whether folk psychology
Cartesian Myth is that, by adopting a linguistically realistic stance, Cartesians (and others) "render mind-language unlearnable" (Park 1992, 285), by ensuring that we could never with any reliability know that our attributions of mental characteristics to another person were accurate, for the words we use denote occult, private events and episodes. But on Ryle's view, we start out with an ability to manipulate these concepts successfully, and the need to explain this ability is what motivated philosophers to theorize in the first place. If our theorizing culminates in a theory that renders the meaning of mental conduct sentences unlearnable, we can assume that we have gone awry in our theorizing somewhere, and Ryle believes that the mistake stems from the fact that the grammar of our language coupled with a naive correspondence theory of meaning suggest that we must learn what mental conduct words denote in order to understand their meaning. Ryle is claiming that understanding the meaning of mental conduct terms consists "simply in learning the appropriate and inappropriate conditions of their use" (Park 1992, 285).

This last point is interesting, for it suggests that monistic philosophical doctrines like Central State and Eliminative Materialism have in common with dualism a crucial mistake, specifically the category mistake of treating mental terms as if they refer to events and processes. These philosophical doctrines all mistake themselves for science by giving causal answers to conceptual questions. It seems that this claim is too strong, for this would entail that any attempt to provide an explanation of concepts such as 'consciousness' and 'intelligence' in terms of inner causal mechanisms would be misguided. Perhaps Ryle would be resistant to such projects, because of his rigid distinctions between philosophy and science, which rests on an implicit distinction between conceptual and causal questions. I'll return to this latter distinction towards the end of section five, where it will be discussed in the context of cognitive science, one of the disciplines that is threatened by this interpretation of Ryle. Park claims that cognitive science et
"may be unable to deliver the philosophical riches they currently promise" (Park 1992, 290), but it could be argued that those disciplines are not attempting to deliver the particular riches she and Ryle have in mind. This may be due to an unnecessarily narrow conception of philosophy, one which holds that we should never depart from the conceptual level, or bridge the gap between conceptual and causal matters.

But I think we can see now at least one way in which Dennett is indebted to Ryle's philosophy. Ryle's starting point is unabashedly linguistic, in that the concepts embedded in our everyday language provide the starting point for philosophical investigation. In the following chapter, I will present Dennett's heterophenomenological method in greater detail, but for present purposes we can introduce it as a method by which we extract linguistic texts from a subject, that provide a set of explananda. This set consists of avowals on "how things seem to the subject", avowals which suggest that the subject believes that she is experiencing various actual phenomena. But Dennett denies that the language of such texts, which makes mention of such concepts as pains, mental images, and perceptual experiences, necessarily implies any ontological responsibility to find actual correlates for these concepts in the brain.

Bjorn Ramberg, in an unpublished paper "On Dennett's Consciousness Explained", interprets Dennett as providing a distinctly non-ontological approach to consciousness, and I would like briefly to point out how his interpretation provides some interesting parallels with Park's interpretation of Ryle. Ramberg suggests that Dennett's project is not one in which phenomenology is analyzed to reveal its "implicit ontology", which is then calibrated with reference to science. Such a confrontation will culminate in the three possible ontological positions mentioned by Park: "irreducibility vs. reduction vs. eliminativism [antirealism(O)] can play themselves out, each marking attachments to different anchors" (Ramberg 1993, 11). What is Dennett's aim then, according to Ramberg? It is "to give us a more coherent way of speaking about a range of phenomena which we pretheoretically designate with the aid of the 'consciousness' -label" (Ramberg 1993, 11–emphasis added). This should remind one of Ryle's claim that any theory of the mind presupposes just such pretheoretic, everyday usage of mental terms. Ramberg suggests that, for Dennett, such pretheoretic usage is "rhetorically primary" in
that it is the starting point for all theorizing but, like Park's Ryle, no ontological commitments are entailed by this fact. Where Dennett differs from Ryle is in his naturalism: our pretheoretical language should be connected in a systematic way with scientific accounts. Ryle has seemingly remained staunchly anti-scientific, denying that the defining philosophical project of logical cartography must make contact with scientific 'sleuthing'. This is the conceptual/causal debate, and I'll examine Dennett's take on it in section five.

For now, though, it should be said that Dennett's commitment to science need not presuppose a belief in the ontological superiority of scientific over pretheoretic talk. Science need simply represent an "attempt to speak economically and coherently about the world" (Ramberg 1993, 12), and need not put us in contact with the non-linguistically real. Dennett agrees with Ryle that philosophical analysis of our pretheoretical language won't yield any ontological commitments whatsoever, but there is still a need to develop a scientific 10 language of explanation, a vocabulary that is richer and more economical, and one in which certain pretheoretical terms will no longer appear.

3) The Deconstruction of the Cartesian Myth

Ryle outlines what he calls 'the official doctrine' in the first chapter of CM, entitled "Descartes' Myth", and is concerned to expose this myth for what it is, namely a category mistake. Following Park, I'd like to suggest that Ryle's rejection of the Cartesian myth is not to be interpreted as an argument for the falsity of dualism, considered as an ontological claim, but should be instead regarded as an argument intended to show that any theory that treats of mental-conduct language using terms which refer to events and processes in a hidden, private realm is incompatible with the logic of that language.

The notion of a logical category has been around at least since Aristotle, and was also a fundamental concept in Kant's philosophy. Ryle's notion of categories differs from that of these

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10By 'scientific', I mean a language that endeavours to give causal explanations; explanations that posit inner mechanisms which, in one way or another, are responsible for our heterophenomenological assertions. This is the kind of project Ryle derides as 'para-mechanical'. But once we realize, with Ryle, that the grammar of our everyday language doesn't need to influence our ontology, our scientific theories can be straightforwardly and unmysteriously physicalistic.
earlier philosophers. For Ryle, a category is a sort of logical grouping. It is important to note that this grouping applies to propositions, rather than to uttered or spoken sentences in a particular language. This is why, as we shall see, a sentence may be correct in grammatical form, but embody a category mistake.

The proposition expressed by a sentence is composed of various terms or expressions (Ryle calls them 'sentence factors') (Ryle 1971b, 173). For instance, the X in the proposition 'X is ugly' may be filled in by, for instance, 'She' or 'The man who lives next door'. Both of these are sentence factors.

Now, some factors may not, without absurdity, be substituted into the above sentence, in spite of grammatical correctness. For example, 'Saturday' or 'my apology' would be included in this group. From this we can see that 'Saturday' and 'the man who lives next door' are factors belonging to different categories. This doesn't mean that 'Saturday' and 'my apology' are in the same category, for there may be (and are, in this case) propositions in which it would be appropriate to insert one of these factors, and absurd to insert the other.

A category mistake occurs when we treat an expression as though it belongs to a logical type or category to which it does not in fact belong. Category mistakes reveal themselves in the form of absurdities. These may be obvious like (e.g. like 'Saturday is in bed') because we are already thoroughly familiar with the logical powers of the expressions in this proposition.

However, certain category mistakes are much less obvious, because the 'logical geography' of the expressions are not adequately understood. This is the case, for example, with mental terms. We can discover the category mistake by deriving absurdities from the para-mechanical claims of the 'official doctrine', but we must then sketch out the actual logical powers of the mental terms involved. This is Ryle's goal in CM. The constructive and deconstructive aspects of Ryle's method are intimately related, however, as it is only by deriving absurdities that we can locate the logical boundaries within which a given expression can legitimately operate.
Ryle first describes the 'official doctrine', as he calls it. Human beings have (or consist of) both a mind and a body. The body consists of physical substance, and its history is public in that it can be observed and recorded by anyone. The mind, conversely, is immaterial, composed of some sort of 'mind-stuff' that is distinct from physical substance. Unlike bodies, however, the history of each and every mind is private, not only in the sense that mental events are not part of the publicly accessible material world, but also in the sense that each unit of mental substance, each mind, is inaccessible to other minds. What's going on in my mind cannot be directly known by you, and vice versa. We can only have indirect access to each other's mental life by means of one another's verbal reports and other behaviour. But my access to my own mind has often been claimed to provide direct, incorrigible knowledge to me of my own mental states. The mind is the seat of consciousness, after all, and conscious states were thought 'self-intimating', or to use a typically luminous metaphor 'phosphorescent'. They glowed with an inner 'light' that could not fail to be noticed by the mind itself. This last aspect is what is responsible for the doctrine of privileged-access, or direct self-knowledge, which will be dealt with in section six.

Despite the gulf between these two substantially different elements of human beings, minds can influence the material body to which they are 'connected' and vice versa. This is what makes it possible for me to will that I raise my hand, and feel pain when a sharp object makes contact with my skin. The nature of this causal connection has always been mysterious, but no other theory had been advanced which could plausibly eliminate this fundamental duality of human beings.

This doctrine is historically indebted to Descartes, who was one of the first to interpret 'creeping mechanism' as a threat to religious and moral thinking. A key aspect of the Cartesian myth is its para-mechanical flavour: just as Newtonian mechanics is a deterministic theory of the way in which matter behaves, so too is the official doctrine intended as a deterministic theory of the mind. The mind is conceived as an extra centre of causal processes, with mental activity being governed by a different, but analogous, set of laws. This, for Ryle, is indicative of the root mistake, namely that 'mind' and 'matter' were both terms that were located within a common framework of concepts that included such notions as 'cause', 'thing', 'process' and 'effect'. As a
result, issues of how the physical could exert a causal influence on the mental, and vice versa, arose.

The way in which Ryle attacks the Cartesian doctrine is by showing that attempting to develop a theory of the mind which uses the concepts of events and processes occurring in a second, hidden world violates the logic of our language of mental-conduct terms, producing absurdity. We are therefore licensed to reject such a theory, because Ryle believes that all philosophical claims must be checked against concrete applications of these concepts in everyday life. It cannot be the case that our theory, for instance, denies us abilities that we display in distinguishing intelligent from stupid behaviour, because it was our possession of these very abilities that motivated the theorizing in the first place. Ryle's deconstruction of various aspects of the Cartesian myth, such as the notion that all intellectual powers are a result of inner theorizing, or that we must make room for a special realm in which 'sensations' and 'mental images' can reside, follows this pattern. 11

But Ryle was not content merely to point out in what ways the official doctrine has erred in its placement of mental-conduct terms with respect to certain conceptual frameworks. He also wants to give a positive account of how we should allocate these terms, and the locus of this account is in chapter five of CM, entitled "Dispositions and Occurrences".

4) The dispositional account of mental conduct language

Ryle believes that the adherents of the official doctrine got off on the wrong foot when they claimed that mental terms referred to hidden episodes and processes. When we look at the logical behaviour of these terms, we find that they should be allocated with dispositional concepts. So, for example, to say of someone that she is clever is to say something about certain behavioural capacities and tendencies, and it is no part of the logic of the term 'clever' such that using the term involves reference to some hidden causal episode or state of affairs. The term 'clever' behaves in much the same way as such non-mental dispositional terms as 'brittle' or 'elastic'.

11The former aspect will be more fully discussed in the section entitled 'Knowing How and Knowing That'.

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Not only does Ryle give a dispositional account of character-trait words, but other mental-conduct terms such as 'believe' and 'know' are also treated in this way. So to say "Bobby knows how to do arithmetic" is to attribute a capacity to Bobby such that, among other things, Bobby will be able perform various arithmetical operations swiftly and accurately, recite the times table up to some suitably high number and so forth. This last example brings out an important distinction with regards to dispositional terms, namely that they can be either determinate or determinable. A determinate disposition, like being a cigarette-smoker or a ruminant, is one in which one type of behaviour is associated with the term, whereas many different forms of behaviour can satisfy a determinable disposition. Terms like 'know' and 'believe' are paradigm cases of the latter type, and Ryle indicates that a failure to realize this fact has caused many a theorist to postulate hidden acts of knowing and believing, despite being fully aware of the dispositional nature of these terms. All dispositional terms make reference to sentences which are about episodic states of affairs, but those episodic sentences need not be all of the same kind, and none of them are instances of occult episodes taking place in a hidden arena.

Park's emphasis of the importance of the theory of meaning to Ryle's philosophy is reinforced here as well, as his insistence that some indicative sentences embody dispositional terms in this way shows that any naive correspondence theory of meaning (in which all indicative sentences can have meaning only if they denote states of affairs) will not do justice to the fact that this kind of sentence has another purpose entirely. One kind of sentence which expressly does not have this reporting purpose is a scientific law. Ryle believes that dispositional sentences are importantly lawlike, although they are not actually laws in the sense that they lack the universal character of laws.

Like laws, dispositional sentences can be expressed using 'open hypothetical' sentences, which provide an 'inference ticket' such that we can validly infer that certain states of affairs will come about when certain conditions are already present (Ryle 1949, 117). This hidden feature of dispositional sentences (like 'he knows French') is what separates them from grammatically similar sentences that express a straightforward matter of fact. It is important that this 'inference
ticket' not be ontologized in such a way that there is the conditional state of affairs, the further state of affairs, and the causal connection allowing us to move from the former to the latter. For Ryle, it is no part of the meaning of dispositional expressions like 'this wire conducts electricity' that there be some hidden, structural state of affairs that guarantees our entitlement to make certain factual predictions and explanations of the wire. It is important to note that such hidden states of affairs are not explicitly denied by Ryle. It is merely that their existence or non-existence has no bearing on the logical powers of dispositional sentences. This idea will have important consequences for those cognitive scientists who have more recently criticized Ryle's attack on the intellectualist legend, as I will show in section five.

Ryle's project is predominantly one in which mental conduct language is no longer to be associated with occurrent or episodic concepts, but instead is reallocated to a dispositional framework. Unfortunately, this strategy cannot be carried out in its entirety, for there are some mental expressions which resist a straightforward dispositional account. There are some occurrences which exhibit qualities of character. One important class of this type is the group of 'heed concepts' such that a person can be said to be doing something, 'mindful of what he is doing'. The temptation that Ryle wants us to resist here is the one in which we interpret such expressions as indicating that two activities are taking place, namely the visible activity (e.g. driving a car) and the hidden act of paying attention to or concentrating on the act of driving. Such an interpretation leads us directly back into a 'two-worlds' doctrine of mental events and processes and all the attendant problems that go along with it. But neither can we give a straightforwardly dispositional account, for we cannot deny that in such instances it is not absurd to characterize the person as 'paying heed now to what he is doing.'

Ryle suggests that these expressions should be treated as mongrel-categoricals, a class of statements that bridges the gap between hypotheticals and categorticals (Ryle 1949, 135). Roughly, such expressions give an explanatory account of the actual occurrent behaviour by placing the behaviour in a logical setting wherein it can be seen as the kind of thing that the subject would be expected to do, given its current dispositional state, or (more specifically, for persons) 'frame of mind'. Again, it would be a mistake to interpret Ryle as denying that there is
an actual, structural difference (in the chemistry of the subject's brain, for instance) between a 'mindful' and an 'absentminded' act. But such structural differences (the existence of which Ryle makes no claims either for or against) have nothing to do with the logic of these expressions. For instance, the presence of a particular structural feature is not the right sort of thing to provide a justification of a description of someone as 'acting heedful of what one is doing.'

Another important aspect of Ryle's positive theory is the distinction between achievement words and normal task verbs. Achievement words have the grammatical structure of other episodic words, but can be shown to have quite different logical force. For example, 'looking' and 'seeing' are performance and achievement words respectively.

The term 'seeing' seems to connote an episode or process, but in fact it is not. Rather, it means something like 'successful looking'. One who has looked and seen has not done two things, but rather one action was done, namely the looking, with a particular consequence. Generally, we can tell to which type a particular episodic verb belongs by attempting to attach such adverbs as 'methodically' or 'inefficiently'. If the word resists such treatment, this is evidence that it is an achievement verb.

This is an important distinction for Ryle, because at least two cardinal errors are a result of a failure to recognize the nature of achievement words. Most, if not all, perception words are achievement words, as well as many other cognitive activities. Epistemologists have long been puzzled by the elusive nature of alleged activities such as the seeings, hearings, and deducings and have often concluded that they must go on in a hidden arena. But once we realize that these words do not describe processes or activities the mystery dissolves, and there will be no need postulate a second world to accommodate them.

Another aspect of these words, as has been already mentioned, is that certain adverbs such as 'erroneously' and 'incorrectly' cannot, without absurdity, be used in conjunction with them. This has led some theorists to suggest that we have a capacity for infallibility with regards to certain kinds of perception and deduction. These theorists made the mistake of construing, for example, seeing as a certain kind of looking, a kind in which we are incapable of being in error.
But the logical impossibility of 'seeing incorrectly' implies no such pseudo-causal ability on our part to make errorless seeings etc.

This section has introduced the main thrust of Ryle's positive program, which can be summarized by saying that Ryle is arguing that the proper logical category for most mental-conduct terms is not an occurrent or episodic one, but instead is dispositional. This will not do for all such terms, as Ryle recognized, and the mongrel-categorical class was intended to capture many of the terms resistant to a straightforwardly dispositional account. Still, there continued to be problems. One notorious area of concern is the topic of thinking, and Ryle's dissatisfaction with his own account in CM led to further articles on the topic in his later years. It is not within the scope of this paper to delve into the complexities of this particular topic, but suffice it to say that Ryle's positive program, even when properly construed (see section one) doesn't offer a fully satisfactory account.

5) Exploding the intellectualist myth

A crucial part of the official doctrine is the primacy of intellectual activity as a paradigm of the mental. The 'intellectualist legend', as Ryle calls it, holds that when we perform an intelligent action, we are in fact doing two things: 1) considering a set of rules or theorizing and 2) acting or executing. The first is an internal operation (presumably taking place in the inner mental arena) and the second is the overt behaviour, which follows causally from the first. Ryle rejects this conception of intelligent action and begins to argue for a different one by introducing two objections. First, for many activities that are traditionally conceived of as intelligent, the performer of the intelligent act is unable to produce a set of rules that he was explicitly following. Joke-telling is an example of this kind. Despite the performer's inability to come up with these rules or procedures, we are still inclined to call the act an intelligent one. More crucial than this, however, is Ryle's other objection, namely that theorizing is itself an activity that can be done more or less intelligently. But if this is the case, according to the official doctrine, prior theoretical operations must have occurred, generating an infinite regress. If the official doctrine
leads to this kind of absurdity, we have good reason for rejecting it.\textsuperscript{12} In Ryle's terms, 'knowing how' to do something (an intelligent act) is not defined in terms of logically prior propositional knowledge (i.e. 'knowing that').

Given that an intelligent act is not a compound of hidden theorizing and overt behaviour, what then \textit{does} make a given act intelligent? Ryle introduces a famous example: the clever clown (Ryle 1949, 33). What makes us attribute intelligence to the clumsy antics of the clown, an attribution that we would not bestow upon the trippings and stumblings of a clumsy man?

Ryle answers that we call the clown clever because we know that he is making use of an acquired skill. This skill is not an extra event (in addition to the actual behaviour) because the term 'skill' does not refer to an event at all. In fact, the term should be associated with a completely different logical category: a skill is a disposition, or complex thereof. To describe the workings of a person's mind is not to refer to ghostly causes, but instead is to subsume her actions under certain hypothetical propositions (i.e. propositions that say what someone would or could do in certain situations). "Overt intelligent performances are not clues to the workings of minds; they are those workings"(Ryle 1949, 57).\textsuperscript{13}

What Ryle is doing here is claiming that the intellectualist myth arose out of a conceptual confusion. Adherents of the official doctrine, because they were wrong about the logical powers of the term 'mind', believed that questions concerning intellectual abilities required a causal answer analogous to the kinds of answers to questions about everyday objects found in physics. They were trying to give a causal (specifically, para-mechanical) answer to a conceptual question. So when they were trying to explain intelligence in terms of logically prior inner theorizing (the inner causal element allegedly present in all intelligent acts), they were making a mistake, because how an intelligent action is caused is inessential to its being an instance of intelligence. The clown is properly deemed clever because his actions are being admired as an

\textsuperscript{12}Note that Ryle's argument here doesn't imply the falsity of the claim, only the absurdity. On Park's interpretation, this is once more evidence that Ryle isn't taking an ontological position re intelligent actions. Rather, he is saying something about the meaning of terms like 'intelligent' and 'clever', namely that references to hidden theorizings play no part in how we use such terms.

\textsuperscript{13}Note that Ryle should \textit{not} be interpreted as making a reductionist claim in this passage, to the effect that mental conduct should be reduced to overt acts or performances. Rather, modifying the noun 'performance' with 'intelligent' makes us see those acts in a certain way such that we can properly describe them as the workings of minds.
exercise of an acquired skill, which is not a hidden internal cause or act. Skills are not the sorts of things which can be properly described as being 'overt' or 'hidden'. Therefore, to look for a causal, mechanistic, 'wires and pulleys' kind of answer to this conceptual question is to bark up the wrong tree entirely.

Such a view can be seen to be at odds with lines of research currently being investigated in the disciplines of cognitive science and artificial intelligence. For cognitive science seems to be unapologetically intellectualist in its aims. Ryle thought it was obvious that we couldn't explain our mental abilities in terms of manipulation of internal representations according to rules and recipes. This would set up the infinite regress and would require the postulation of ghostly para-mechanical processes. But cognitive scientists are concerned with doing just such an explanation of mental abilities in terms of internal symbol-manipulation, and this discipline is straightforwardly and unproblematically materialistic. It seems as if Ryle has underestimated the possibilities for the use of mental representations—a use that need not imply allegiance to ghosts in the machine. I think one reason for his underestimation is that we can now talk of unconscious mental representations. No inner observer need be postulated for whom these representations are presented. This is because they are representations in virtue of the functional role that they play in the whole system. They are representations that are discernible from the point of view of an external observer, when that observer is trying to find out how the brain keeps track of various events in the rest of the body and the external world.

Dennett believes that Ryle may have been wrong in that he appears to have denied the possibility of speaking of a person being composed of smaller, internal subsystems that may be said to represent things explicitly (Dennett 1987, 218). However, he maintains that Ryle may have been importantly right in maintaining that at bottom, there must be mere tacit know-how. Otherwise, there will be an infinite regress. Ryle was unwilling to descend from what Dennett has elsewhere called the personal level, to countenance the possibility of sub-personal level, unconscious representations (Dennett 1978, 154), but this basic insight of Ryle's must apply here.

\[14\text{That Ryle would deny this is unclear, for 'internal events' of the sort discussed here are not the kind of 'inner' (a non-spatial, metaphorical use) events Ryle wanted us to stop talking about. It is more likely that Ryle might claim that such internal happenings, whatever their nature, were irrelevant to the discussion at hand.}\]
as well. Dennett thinks that cognitive science has overestimated the extent to which certain processes are explicitly represented at this level, but he does recognize that the project of cognitive science is a valid and necessary enterprise. Nevertheless, he urges that theorists in cognitive science and elsewhere should be more wary of Ryle's warnings against having representations all the way down.

Current connectionist models of cognitive functioning offer an even more radical allegiance to Rylean 'know-how'. The traditional assumption in cognitive science is that knowledge is represented in terms of sentences or sentence-like propositions, which are then manipulated in accordance with a system of rules. But connectionist models attempt to encode knowledge without explicitly employing propositions at all, going straight to the bottom, in Dennett's terms. The basic units of connectionist models are, unlike traditional models, non-propositional in that they are not ordered in strings and often do not represent anything in and of themselves (representation is 'emergent' or 'distributed'). Such models have had limited success mimicking various propositional cognitive activities. Further research may show that our ability to manipulate external symbols need not depend on inner mechanisms of symbol-manipulation. Symbol manipulation may not be a basic cognitive capacity, but instead may be something we learn how to do by a different form of knowledge encoding, such as pattern recognition. If our ability to think propositionally can be explained in this way, we can say that 'knowing that' depends upon, or is merely a special case of, 'knowing how'.15

As useful and interesting as such Rylean approaches are in cognitive science and artificial intelligence, we should keep in mind that Ryle would never endorse these programs as consequences of his own view. These disciplines are scientific in nature, and Ryle is concerned to maintain a clear distinction between scientific inquiry and philosophical inquiry, of which The Concept of Mind is a paradigm example. No amount of conceptual cartography will ever falsify the ontological claims of any scientific discipline. If the connectionist approach were eventually to triumph over more traditional rule-following propositional models, the connectionist revolution would not be a vindication of Ryle's philosophy of mind, nor conversely should the

15All information on connectionism in this paragraph drawn from (Bechtel and Abrahamsen 1991, 147-175).
reverse outcome be interpreted as a final refutation of his views. Whether philosophical inquiry should be so divorced from the realm of science is a question I will defer until the end of the next section.

6) Self-knowledge

One of the tenets of the Cartesian Myth is that we have a sort of incorrigible, direct access to the hidden states and processes in our own immaterial minds. This is the doctrine of Privileged Access, to which I have previously alluded, and its history is at least as old as the Cartesian Myth itself. Since Ryle believes that the hidden states and episodes of mental life are mythical, it stands to reason that the means by which we find things out about our minds (or, less misleadingly, ourselves) cannot be as they are traditionally described.

Ryle describes the two ways in which self-knowledge is obtained according to the official doctrine: consciousness and introspection. Consciousness, or 'constant awareness', is an ongoing process such that whatever is currently going on in one's inner arena is automatically known by the mind itself. Introspection, on the other hand, is an episodic act by which the mind 'perceives' (without the aid of gross bodily organs) certain of its ongoing states and processes. In both cases, there is said to be no room for error in this acquisition of self-knowledge. The deliverances of consciousness and introspection are superior (and also epistemologically prior) to the deliverances of our senses, being a different kind of knowledge acquisition altogether.

Ryle argues that the doctrine of Privileged Access is false, in that there is no difference in kind between self-knowledge and knowledge in general:

The sorts of things that I can find out about myself are the same as the sorts of things that I can find out about other people, and the methods of finding them out are much the same. A residual difference in the supplies of the requisite data makes some differences in degree between what I can know about myself and what I can know about you, but these differences are not all in favour of self-knowledge. (Ryle 1949, 149)

This is a radical claim from the traditional perspective, for the traditionalist has always seen an obvious asymmetry between self-knowledge and knowledge of others, and considered this asymmetry evidence for the existence of two different kinds of knowing. But for Ryle, the bottom
line is that if we are going to reject the treatment of mental language in the terms of events and processes, there can be nothing of which we can be conscious or to which we direct our faculty of introspection. This, of course, is not going to faze an adherent of the official doctrine, so Ryle presents some objections to consciousness and introspection (as traditionally construed) which do not depend upon a prior rejection of the Cartesian myth.

First, although one's consciousness is seldom described as a separate act of attention, it is the case that one's consciousness of a mental process is of something different than what the actual process is about. For example, the content of a process of deduction might involve a number of premises, followed by a conclusion, whereas the content of one's consciousness or awareness of that process would be something like 'Here I am deducing this conclusion from these premises'. This implies that there is also the possibility of being conscious of one's awareness that one is making a deduction, and so on. The logic of the term 'consciousness' seems to allow for an infinite hierarchy of consciousness embedded in any mental state. We could reject this implausible conclusion by claiming that the outermost layer of any such hierarchy is in fact unconscious, but this seems to imply that, despite the claims of the official doctrine, consciousness is not a property of all mental events.16 Ryle believes that he is therefore warranted in rejecting the argument that there are mental events, because deliverances from consciousness guarantees (incorrigibly) their existence.

A similar argument is launched against the notion of 'introspection'. This term, which Ryle sees as primarily a technical phrase used by Cartesian theorists, is described as being an actual act of some sort, by which we come to know particular things about our own mental processes. One reservation we might have about such an ability is that it requires that we must

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16 Interestingly, this is perhaps the source of Rosenthal's analysis of the concept of consciousness in terms of higher order thought: "Conscious states must be accompanied by suitable higher-order thoughts, and nonconscious mental states cannot be thus accompanied" (Rosenthal 1990, 16). The key idea, for our purposes, is that an infinite regress is avoided because the second-order thought does not itself have to be conscious in order for its first-order object to be conscious. I think the similarity is interesting because Rosenthal's analysis is explicitly one pertaining to folk psychology, whereas Ryle is talking about the uses of the term in our everyday language. It leaves me with the impression that any distinction between folk psychology as a scientific theory and our everyday use of the term is merely artificial. It also makes it clear what the difference is between Dennett and Ryle, for Dennett is opposed to Rosenthal's explanation of consciousness, not because it gets the logic of the concept wrong (with that he is in broad agreement), but because a scientific (causal) theory of consciousness cannot be developed using the terms of folk psychology. If I am right that Rosenthal and Ryle are basically doing the same thing, Dennett would say the same thing about Ryle.
be able to do two things at once, namely we must instigate some inner mental process must be (like deducing) and we must contemporaneously introspect that we are deducing. This runs against our intuitions of what people are capable of doing, but Ryle sees that it can't be ruled out as a logical impossibility. However, if we do accept that we can attend to two things at once (i.e. the mental process and our noticing that we are doing that process), we must at least admit that there's a practical limit to how many things to which we can attend at one time. This would imply (and here the analogy to Ryle's treatment of consciousness is most strong) that there are at least some mental processes, namely the 'outermost' or highest order process of introspecting, which is not itself introspectible. It is then apparent that not all knowledge of mental processes could be got from introspection and therefore "it is an open question whether it ever does"(Ryle 1949, 158). Ryle recognizes that this argument isn't as strong as the analogous argument with regards to consciousness, in that the official doctrine doesn't make any claim that all mental processes are introspectible. It is certainly open to the Cartesian to claim, when pressed in this way, that those mental events unreachable by introspection are the deliverances of consciousness. But certainly this whole framework is beginning to look artificial and ad hoc.

Ryle suggests, however, that much of what we want introspection to do can be handled by the actual and philosophically unproblematic process of retrospection, by which we are able to obtain information about what we have just been doing or thinking. There is no need to postulate any ability in us to attend to more than one thing at once, which was the aspect of introspection that was most problematic, and we are able to gather a wealth of information about our actions, thoughts, and character in this way. What retrospection will not do, however, is guarantee any sort of Privileged Access, since it is always possible that in any recollection of past events, no matter how recent, there is room for error to creep in. Nor is it the case that I will always be able recognize a past feeling or twinge for what it is, which runs counter to the claims of the official doctrine. But Ryle is concerned to deny that we possess any form of Privileged Access, so the fact that retrospection endows us with no incorrigible claims to knowledge is of no concern to him.
Ryle's attack of the official doctrine is a powerful and persuasive one, but we can start to see a tension, beginning with what was said about retrospection in the last paragraph. Remember that Ryle said, "The radical objection to the theory that minds must know what they are about, because mental happenings are by definition conscious, or metaphorically self-luminous, is that there are no such happenings" (Ryle 1949, 154). But in his discussion of retrospection, he claimed that among other things, we can retrospect imaginings, sensations, and feelings. Elsewhere he claims, "I am the addressee of my own unspoken soliloquies" (Ryle 1949, 162). What are these things, if not mental happenings? Ryle seems to be implicitly presupposing what he is explicitly denying, namely that there is a class of inner, private events to which one has access, whether privileged or not.

Richard Rorty, in an article entitled "Contemporary Philosophy of Mind", has noticed this tension in Ryle, and suggested that Ryle has in fact "got off on the wrong foot in questioning the existence of introspection" (Rorty 1982, 330). In Rorty's view, Ryle was importantly right in trying to deny Privileged Access, construed as means by which we gain intuitive, pre-linguistic knowledge of our minds, but made a strategic error in trying to secure this result by denying that there are inner events to which we have access. What he should have said, Rorty claims, is that knowledge of mental events is no more, and no less, direct than knowledge of events in the external, material world : "we know with equal directness that we feel nostalgic, that something before us is brown, that it is a table, that it is the table that used to stand next to the fireplace in our childhood home, and so on" (Rorty 1982, 331). In this way, we can assert the falsity of the doctrine of Privileged Access without denying mental events and processes.

I think Rorty is right in saying that the historical importance of Ryle is that he was the first to raise questions about the implicit Cartesian premise that we have a special kind of access to our inner states, one that is different in kind from the access that we have to the external world or the states of others. But Rorty's characterization of Ryle as explicitly denying that there are inner events and processes, though understandable, is off the mark. Certainly Ryle can easily be construed as saying something of the sort, when he says of mental events "that there are no such happenings", but here is another quote from CM: "I am not, for example, denying that there
occur mental processes. Doing long division is a mental process and so is making a joke" (Ryle 1949, 23). Is Ryle just contradicting himself here, or is he trying to say something different in these two instances?

I think that we can once again resolve this apparent inner tension if we adopt Park's interpretation. Remember that, on this view, Ryle is making no ontological claims whatsoever about mental events or anything else for that matter. So Rorty can't be right when he characterizes Ryle as trying to deny the existence of mental events. He is neither trying to affirm nor deny such events in this ontological sense. What he is trying to claim is that saying "there are mental processes" is saying something in a different logical tone of voice from saying "there are physical processes," so when Ryle says "there are no such happenings" in the context of his discussion of introspection, he means that there are no events which are like physical happenings, but taking place in a mysterious, immaterial realm.

Of course there remains the further question of what physical processes are causally responsible for our ability to do long division and our proneness to feel nostalgic in certain circumstances. Ryle's refusal to countenance such questions can be regarded as a shortcoming of his theory, but only if you disagree with him about what a philosophical theory of the mind is supposed to do. For Ryle, philosophy is solely a conceptual inquiry, in which we map out the logical interconnections implicit in our language. Questions of underlying causal processes are the concern of the sciences, and should play no role in philosophical theory.

Contemporary philosophers of mind, like Dennett, no longer honour this strict science/philosophy dichotomy. Dennett's theory of consciousness is unabashedly empirical, in that it is grounded in our best current scientific theories of how the brain works, and Dennett admits that further scientific inquiry and testing can, in principle, invalidate his theory. Certainly, Ryle would deny that his theory of the mind could be disproved in this way. To me, it seems pointless to assign rigid job-descriptions in this area: philosophy is comprised of those kinds of things which people who call themselves philosophers do. Ryle's endeavours to chart out the logical terrain of mental-conduct language is important and useful work, but so is more empirically-minded inquiry about the physical processes that must in some way be responsible
for our having this language in the first place. Philosophers of mind are often found doing this latter kind of work, perhaps because there is a need for it because the sociological climate in the sciences tends towards a certain kind of insularity.

It is possible to reformulate this fact in a way that would perhaps be partially acceptable to Ryle. What philosophers like Dennett are trying to do is to create bridges of communication between various disciplines, for instance, between neuroscience and psychology. This involves a lot of conceptual cartography, except that the concepts used in one discipline are absent in another. This is what makes it so hard to translate neuroscientific talk into psychological talk. What is the neuroscientific correlate of a belief? Why do some forms of brain damage affect our desires and character? There needs to be some intermediate steps taken, in which new concepts are employed which can serve as links between disciplines. By means of such "bridge languages" (and there will probably be more than one "level" or "stage" in any particular instance) we can facilitate useful communication between disciplines, wherein the concepts of one are placed in a logical relation to the concepts of another, albeit indirectly.

7) Conclusion

*The Concept of Mind* is a landmark book in the philosophy of mind, as it offers a radical new approach, one that is able to overcome the perennial problems in the field by challenging the very framework from which these problems emerge. Ryle's philosophy has over the years become less fashionable, and it is interesting to note that he has often been dismissed because it was believed that he was saying something *more* than what he was in fact saying. He is not, for instance, saying that mental states reduce to overt or hypothetical behaviour, so his failure to argue for this kind of reduction as opposed to those reductions found in central state identity theory or functional state identity theory is not a shortcoming of his theory. His view is neither a reductive or eliminative one, because it makes no ontological claims at all. Primarily, Ryle was concerned with issues of meaning, and his main thesis was that we have been misled by the grammar of mental conduct terms in our language. They have been looked at denotationally, whereas the way in which we use these terms suggests a different role for them altogether.
In this chapter I have examined a recent non-behaviourist interpretation of Ryle, and found that this interpretation does in fact make sense of seemingly glaring faults and tensions in his work. Ryle's positive and negative theses have been described in the light of this new interpretation, both generally (sections three and four) and with regards to specific issues (sections five and six). If you accept this interpretation (and I don't claim to have done enough to prove its validity), Ryle's theory is not deserving of the quick dismissals that have been its lot. What remains at issue is the metaphilosophical question of what in fact the domain of philosophical inquiry is. If we accept Ryle's view here, any philosophical theory that deals with hidden causal mechanisms has stepped over the bounds of legitimate philosophical inquiry and has entered the domain of science. Dennett's homuncular functionalism, no less than Descartes' Substance Dualism, would be ruled out as a contending philosophical theory, despite Dennett's explicit allegiance to many of Ryle's views and methods.
CHAPTER THREE

1) Introduction

In this chapter I will describe and critically examine the theory of consciousness that Daniel Dennett puts forth in *Consciousness Explained*. First I will describe what Dennett takes to be the implicit theory to be overthrown, Cartesian Materialism, and why Dennett thinks it to be an attractive and yet subversive view. Next, I'll outline the heterophenomenological method, which Dennett takes to be a neutral method of describing the data of consciousness. Here I will argue that Dennett is wrong to claim that the method is neutral enough to be accepted by all disputants, for imbedded in the method is an important and very controversial assumption, which receives its only justification from the very model of consciousness for which the heterophenomenological method was to provide the neutral data. Nevertheless, I will also make the claim that there is an interpretation of Dennett's overall theory (I call it the "package deal" interpretation) which allows that, despite there being no non-circular argument for his choice of heterophenomenology, we should still adopt the method.

In the next section, I will present the *Multiple Drafts* model of consciousness as well as Dennett's strategy of isolating a particular empirical case which, though puzzling from the Cartesian Materialist perspective, is rendered comprehensible by the MD model. The following section is devoted to an exposition of this case, the colour phi phenomenon. There is a strong verificationist streak in Dennett's theory which I'll point to and examine, and I'll also discuss possible objections to his verificationist treatment of the colour phi phenomenon. Again, I'll invoke my "package deal" interpretation as a means by which one can respond to the various possible objections.

Chapter Seven of *CE* is clearly a reversal of the "black box" strategies of the earlier chapters. Here, Dennett considers consciousness in light of the evolutionary process that must have produced it. I will give an exposition of Dennett's three types of evolution and following that I will discuss the implications of Dennett's metaphor of consciousness as a virtual machine.

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1This book will be referred to in the text as *CE*. 

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The connections that this new way of talking about consciousness has with the MD model are not immediately obvious, and I will suggest where I think the points of contact are. In the process of doing this, I will expose and discuss a questionable analogy, and once more praise the virtues of the "package deal" interpretation.

In the final section of *CE*, Dennett finally takes on the philosophical issues as they are normally discussed. I'll outline and defend his reasons for saving this task until the end, and examine in detail three of the philosophical problems discussed: the notion of zombies, Nagel's claim that no amount of third-person knowledge could tell us what it is like to be a bat (Nagel 1974, 435-450), and the issue of *qualia*.

2) Dennett on Cartesian Materialism

We have a tendency to consider individuals as points of view, or centres of subjectivity. Although this is a natural and useful way of talking about human beings for many purposes, for the purposes of understanding the physical processes underlying the phenomenon of consciousness, we must abandon it. A quick look at the organ responsible for conscious awareness, the brain, will show why.

The human brain has a *massively parallel* architecture. That is, information-processing content-fixing events take place through multiple channels in the brain. Thus, many such events are taking place simultaneously and in spatial locations at a distance from one another. Somehow this complex, parallel activity is responsible for the various phenomena of mental life, including the illusion (if it be an illusion) that there is a unified agent, or point of view. And yet, Dennett claims, if we follow the path of some sensory input from the peripheral sensory systems, through countless levels of processing, and then on into behavioural output (perhaps in the form of muscle contractions in the throat), we will never be able to locate a point in either time or space that can convincingly and non-arbitrarily be labeled the point at which the input was perceived by the agent.
The view that there is such a point Dennett calls *Cartesian Materialism*. It is a form of materialism because those that endorse it believe that the mind is the brain. The 'finish line', where the "order of arrival equals the order of 'presentation' in experience", is expected to be an actual spatial location in the brain (Dennett 1991a, 107). Descartes, a dualist, thought that the pineal gland provided the interface between the physical body and the nonphysical mind (the observer, the self) in humans. *Cartesian* materialists deny that there is any non-physical 'mind-stuff' (i.e. they reject Cartesian dualism) but cling to the Cartesian notion that there must be a central location in the brain where 'it all comes together'. Dennett argues that it is a mistake to look for such an observer within the brain. Talk about 'points of view' ceases to be helpful and, in fact, becomes dangerously misleading when we stop talking in terms of whole people and start trying to find such a locus inside the brain.

3) Dennett on heterophenomenology

One of the trickiest things to do in the philosophy of mind is to find a way to describe the 'data' of consciousness in a neutral way that will be accepted by all the disputants. We need a way to describe 'what it is like to be' a conscious subject (to borrow Thomas Nagel's phrase) in such a way as not to prejudice the outcome as to which parts of the phenomenology have real correlates in the brain, and which are 'mere' seemings. In assessing Dennett's suggested heterophenomenological method, we must ask first whether it will in fact be so neutral as to be undisputed by all parties, and second whether, regardless of the outcome of this first question, adopting such a method may nevertheless prove to be the right first step to make. This is important because it may turn out that there is room in logical space for other coherent starting points, and yet they may not yield the sort of explanatory theory of consciousness that science requires.

Dennett's heterophenomenological method (henceforth, the HP method) can be divided into a number of stages.\(^2\) First, we extract a text from the utterances of the subject. We do this

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\(^2\) Information in this paragraph drawn from (Dennett 1991a, 72-78).
by parsing the steady stream of sounds emanating from the lips of the agent (or indirectly through a recording device) into words and sentences, compensating for slips of the tongue and filtering out accidental noises (like burps and sniffles). Once we have the text, we can use it to construct the heterophenomenological world of the agent, a theorist's fiction. Heterophenomenological objects found in this world will be the 'seemings' of conscious experience. For example, a squinting subject might utter this text: "I see before me now two candle flames, whereas a moment ago, before squinting, I only saw one flame". The heterophenomenological world of the agent at this moment is populated by two images of a flickering candle. Third, the objects enumerated in this world can then be investigated as to their status. Some may be correlated with real events of content-fixation and discrimination in the brain (there may be discrete events in the visual cortex corresponding to the two candles in your heterophenomenological world) whereas we may take an eliminative stance towards other heterophenomenological objects (there may be no place in your brain where the hundreds of identical happy faces are 'painted in' on a repetitive wall-paper pattern— it may merely seem to you that they are there in your experience).

Dennett emphasizes that his method is neutral "with regard to the debates about subjective versus objective approaches to phenomenology, and about the physical or nonphysical reality of phenomenological items." It is neutral with regard to the former in that, since the objects in one's heterophenomenological world are theorist's fictions and not postulated actual objects, Dennett's method will work equally well on alleged zombies or normal human beings. With regard to the latter half of the quoted passage, Dennett is claiming neutrality because it merely describes what it is like to be the subject in terms of 'intentional objects', and leaves the question completely open as to whether any of the items in the heterophenomenological world correspond to real objects, events, or states in the brain.

Would all parties agree that the method is as neutral as Dennett claims? I think that it is as neutral as he claims, but the method is nevertheless not neutral enough to satisfy all disputants since it fails to allow for the possibility of intrinsic properties of conscious experience known pre-linguistically. Admittedly, he grants the subject as much time and words as necessary to describe in detail her heterophenomenological world: the subject is given the unquestionable last
word on what it is like to be her, on how things seem to her. But, importantly, the subject is not
given any jurisdiction over the causes or metaphysical status of the heterophenomenological
objects found. The subject is not allowed to claim that items in her experience are known to her
by means of their intrinsic, ineffable properties (i.e. properties which are known intuitively, or
pre-linguistically). In other words, the subject is denied any incorrigible direct access to actual
inner mental events. Another way to say this is to deny that the subject has any privileged
representations: the ways in which things seem to the subject never endows the subject with the
ability to make incorrigible judgments about how things actually are. For instance, the subject is
not entitled to claim that we must make room in our ontology for qualia (as something more than
a theorist's fiction). But someone like Nagel would want to claim that the way in which we know
about qualia is independent of any way in which we might describe conscious experience in
language. This is what is meant by the term 'pre-linguistic knowledge'.

Up to this point in CE, has Dennett given an argument denying the existence of privileged
representations? No, I don't think so. However we shall soon see that the Multiple Drafts model
of consciousness denies that there is a place in which contentful events are represented to an
'inner observer' in a direct, non-inferential way. Unfortunately, however, the main argument for
the MD model assumes a prior acceptance of the heterophenomenological method, so Dennett
can't non-circularly claim that this is why we should reject the notion of privileged
representations.

It seems, then, that Dennett has given us no reason to believe that all would
unquestionably accept his new method. But this fact doesn't throw his whole project into doubt.
I think it was too much for Dennett to hope for to think he could establish a methodology to
which everyone would agree. For philosophers like Nagel, to concede at the outset that the

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3 I'll have more to say about the role of pre-linguistic intuitions in the philosophy of mind in the final chapter.

4 However, Dennett does think that the notion of representation will play an important role in the understanding of
mental events and processes. But this form of representation will not be the inner, privileged representation of the
Cartesian theater. What a particular brain process represents will instead be assigned once its functional role is
assessed in the context of first, the brain as a whole, and then, tentatively, to objects in the external world (See
Dennett 1987, Ch. 6).

5 Briefly, the main argument in chapter five for the MD model, involves a heterophenomenological description of the
colour phi phenomenon, in which the subject reports a green dot, followed rapidly by a red dot, as changing colour
from red to green in mid-trajectory. There is an assumption here that the subject here has no authority over what is
really going in his head.
subject has no access to certain intrinsic qualities of conscious experience, qualities that no scientific theory may eliminate, is to admit defeat. Nothing that Dennett has said necessitates that a Nagelian philosopher need back down here.

What I think Dennett can and should say is something like this: adopting the heterophenomenological method and accepting the Multiple Drafts model as a "package deal" may give us a coherent and useful way of talking about the phenomenon of consciousness. This structure of the argument would therefore not be one in which the validity of the HP method is proved, and then the method, now confirmed, is used to show that the Multiple Drafts model is adequate to the empirical data. Rather, Dennett could say that the method and the model are consistent with each other (i.e. the details of the model suggest that we should take an agnostic attitude to the reports of subjects about what is going on in their mental lives, and the model itself is consistent with the heterophenomenological data) and that, taken together, they offer a new approach, one which will help us think in better ways about consciousness and allow us to dissolve a truckload of philosophical problems along the way.

4) Dennett on the Multiple Drafts Model

Dennett presents his alternative to the Cartesian Theater, the Multiple Drafts model of Consciousness (the MD model), in chapter five of *Consciousness Explained*. As was previously mentioned, Dennett argues that it is a mistake to look inside the brain for a point of view, a single place where contents are presented for conscious experience, for to look for such a place is to be committed to the existence of a Cartesian Theater. Dennett's model asserts that all mental activity is realized in the brain by many parallel, multitrack processes, in which incoming sensory input is processed and revised in various ways. *Content discriminations* and *feature extractions* are made in numerous locations all over the brain, and the conclusions drawn at these various places are often (but not always) used to promote further processing which might eventually lead to external behaviour or storage in long-term memory. The crucial feature of the MD model,

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6Information in this paragraph drawn from (Dennett 1991a, 111-113).
however, is this: these content discriminations need only be made once. That is, the content, once discriminated, is not sent on for presentation to some Cartesian Materialist 'master discriminator.' The sum total of the content discriminations produces something rather like a narrative sequence over time. However, this narrative is constantly undergoing "editorial revision" by the many ongoing brain processes distributed around the brain. "Probing" at various times and places will affect the course of this narrative, thus prompting different responses form the subject. The important consequence of this, says Dennett, is that there is no single narrative that is the real or "canonical" one, for that would be to suppose that there was an actual, well-defined stream-of-consciousness of the subject.

Dennett's strategy in the remainder of this chapter is to isolate an empirical phenomenon in which the Cartesian Materialist viewpoint founders, and show how the MD model offers a successful explanation in this case. This confrontation between the MD model and Cartesian Materialism is a useful and effective tactic, although Dennett realizes that much more will have to be said in the remainder of the book in order to render his view more plausible. However, the treatment of the colour phi phenomenon reveals a key element in Dennett's philosophy: Verificationism.

5) The Colour Phi phenomenon, Orwellian vs. Stalinesque, and Verificationism

The colour phi phenomenon, an example taken from experimental psychology, has to do with how our brains process visual information of a certain kind. Since the beginning of the motion picture age, it has been known that a rapid succession of still pictures creates the illusion of motion in human subjects. An early experiment by Max Wertheimer, for instance, involved two small dots, separated by less than four degrees in visual space, lit in rapid succession. Subjects report that it seemed as if there was just one dot moving rapidly back and forth between the two locations. The phi phenomenon, as it has come to be known, came to the attention of the

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7Information in this section drawn from (Dennett 1991a, 114-126).
philosopher Nelson Goodman, who asked if the effect persisted if the dots were of different colours (Goodman 1978, 73). The results were unexpected.

As it turns out, when the first dot (on the left) is coloured red and the second green, subjects report seeing the red dot move to the right, *switching to green in mid-trajectory*. This result was unexpected and *prima facie* mysterious, for it seems to involve an ability to perceive the *second flash before it in fact occurs*. As any self-respecting scientist is going to want rule out any spooky precognitive goings-on, we must at least stipulate that a content "green" can't be attributed to any event until the second flash has reached the retina, triggering the normal neural activity. However, it seems to follow that consciousness of the whole event from start to finish must be delayed until after the green spot has been unconsciously discriminated, as the subjects report seeing "first red, then red-switching to green, then green". Dennett believes that this seductively common-sensical interpretation of the phenomenon reveals an allegiance to the Cartesian Materialist picture.

Dennett proposes two apparently distinct possible types of explanation of the colour phi phenomenon, which he calls Orwellian and Stalinesque. An Orwellian explanation would suppose that the content "red spot" is very briefly experienced in consciousness, but as soon as the "green spot" content is discriminated, a mechanism in the brain concludes that these two events "don't make enough sense." Therefore, the original experience (of a red spot followed rapidly by a green spot, with no illusion of apparent motion) is wiped from memory, and replaced with the experience the subject reports (complete with illusory motion and mid-trajectory colour change). The revisions in an Orwellian theory are therefore *post-experiential*, taking place so rapidly that the subjects don't have time to report the original, untampered experience. On the other hand, the Stalinesque theory postulates a *pre-experiential* revision. The conscious experience of the red spot is somehow delayed until after the green spot is discriminated (somewhat analogous to the tape loops used by TV censors), giving the brain time insert the illusion of motion and colour change before the whole experience is "sent up" to consciousness.

So how does one decide which kind of explanation, Orwellian or the Stalinesque, is the right explanation of the phenomenon? Was the red spot consciously perceived and then
immediately forgotten or was it merely unconsciously discriminated and later inserted into an amended narrative that is only then presented in consciousness? It is useful to enumerate the ways in which the theories are in agreement. First, the theories agree that the verbal reports of the subject will be identical on either interpretation. The subject himself would be unable to tell whether the apparent motion and mid-trajectory colour change are instantiated in him in an Orwellian or Stalinesque fashion; it would seem the same on either interpretation. Scientists representing the two explanations could also quite possibly agree on the brain processes occurring at the time. They could agree on the time in which the content "mid-trajectory colour switch" was added to the processing stream, for example. What they would disagree on, however, would be whether certain contents were pre-experiential or post-experiential. That is, they would place a dividing line at a different time (and therefore in a different place), a dividing line that indicates the time and place at which contents were actually 'present in experience'.

Dennett's point is this: the difference in the placement of the moment at which a certain content is consciously experienced cannot be nonarbitrarily assigned. The subject's own verbal reports can't help to locate this moment, nor can any nonverbal behaviour (because both theories allow for the possibility of unconscious behaviours and conscious behaviours that leave no effects). This leaves both theories in a position in which they are unable to motivate their choice as to why they postulate that conscious experience occurs here rather than there. Here is where Dennett makes his crucial verificationist move. The only real difference between the two theories is the placement of the alleged "moment of consciousness" of a particular content, but there is nothing available to either theory that can motivate this choice. So, says Dennett, there is really no difference between these two theories, the only apparent difference being merely verbal.

Presumably, then, the MD model comes out as a more promising explanation of the colour phi phenomenon, because it does not culminate in the kind of Stalinesque vs. Orwellian standoff that the Cartesian Materialist view does. Verificationism is at the heart of the MD model: "since there is and could be no evidence in support of either Orwellian or Stalinesque models of consciousness, there is no fact of the matter" (Dennett 1991a, 462). Since there is no way, in principle, of deciding at what point a particular content becomes conscious in the multi-
channel stream of brain processes, one would do well to adopt a model which denies that there is any such moment of conscious experience. According to the MD model, the only evidence that something has been consciously perceived is the subject's verbal report to that effect. But one is not to infer from the verbal report that there was a particular moment in between a sensory stimulus and a verbal response that it generates that was the moment in which the stimulus was made conscious to the subject.

What could a critic of the MD model say at this point? It seems that one could ask whether Dennett is justified in claiming a) that there is and will never be any objective evidence that could decide between an Orwellian or Stalinesque model, and b) that, if there in fact could be no objective evidence to decide, there is therefore no fact of the matter.

The first of these two claims initially seems quite strong. How can Dennett just baldly claim that there will never be any objective means by which we could distinguish between these two models? To start, let's look at what kind of objective evidence we would be looking for. Typically, what is suggested is some form of "consciousness marker". This must be supposed to be some sort of physical event in the brain that is always present when a particular content is consciously perceived. If one could find such an objectively determinable consciousness marker (say a global neuronal activation frequency of 40 Hz), then one could decide between Orwellian and Stalinesque models. If the consciousness marker is present along with the discrimination of the red dot, an Orwellian theory could be invoked to explain the phenomenon, and if not, a Stalinesque theory of unconscious processing could be adopted, for we could say that the red dot was not consciously perceived until after the green dot was discriminated. But I think that Dennett's point would be that any such "consciousness markers" could only arbitrarily be accepted.\(^8\) This is simply because the only way to decide whether something is consciously perceived is through verbal reports made by the subject, and in the short time intervals involved

\(^8\)The type of "consciousness marker" in this example embodies the idea that consciousness is a mode of action rather than a system in the brain that is "functionally defined and anatomically located" (Dennett 1991a, 166). A contentful event becomes conscious by "acquiring some property or by having the intensity of one of its properties boosted above some threshold"(Dennett 1991a, 166). Although Dennett is sympathetic to this approach to understanding consciousness, he objects to it being used to motivate Orwellian/Stalinesque-type distinctions. To do so would be to be committed to a Cartesian Materialist picture, and he brings this implicit allegiance out by asking who could benefit from these global properties. Unless a 40 Hz neuronal firing frequency could somehow be recognized and utilized by the brain, it will be of no functional significance.
here, that means of acquiring information is not available (since it takes approximately 200 msecs to form a speech act) (Dennett 1991a, 103). So it is, in principle, impossible accurately to pin down precisely whether the content and the accompanying "consciousness marker" are in fact occurring at the very moment of consciousness, or are both actually unconscious precursors to that moment. This lack of any kind of evidence is what makes Dennett urge us to embrace the notion that there is really no fact of the matter as to when a particular event is perceived "in consciousness".

This brings us to Dennett's second claim. If we accept that, despite there being in principle absolutely no evidence, now or in the future, as to the exact moment at which a content is consciously discriminated, are we therefore justified in denying the existence of any such moment? Dennett thinks that we are so justified, and to me it seems difficult to argue with him on this point: "Putative facts about consciousness that swim out of reach of both "outside" and "inside" observers are strange facts indeed" (Dennett 1991a, 133). I can't imagine how one could hope to argue for the existence of such elusive, ephemeral properties, without lapsing into some very mystical metaphysics.

The second claim, then, is relatively uncontroversial, but let's look once again at the first. It seems that one point of contention could be Dennett's claim that verbal reports are the only objective evidence that we have that a given content is conscious. This is a crucial idea in Dennett, for it justifies the use of the heterophenomenological method. Interpreted speech behaviour is the neutral body of data to which any theory of consciousness must conform. Is it possible that he is omitting valid objective data (neurophysiological data) by mistakenly adopting the heterophenomenological method? For instance, it might be argued that a highly developed neurophysiological model of brain function could determine the precise moment when a certain content has achieved "neuronal adequacy" for consciousness. Perhaps there could be valid reasons, such as consistency with the rest of the theory for settling on this moment of "neuronal adequacy." I myself don't quite see how any theory of this kind can get around Dennett's point about how the spatially (and therefore temporally) extended nature of the human brain constrains the nature of consciousness, but even if one could do so, it remains a fact that
any allusions to such a theory can now be regarded only as promissory notes. Earlier I offered an interpretation of Dennett in which I urged that the HP method and the MD model be regarded as a "package deal". I think that, with regards to the possibility of nonverbal behaviour as data for a theory of consciousness, Dennett could maintain that his "package" offers a consistent and useful way of talking about consciousness, and that one of the features of his package is that non-verbal behaviours are eschewed as data for the presence of consciousness. This feature is not merely arbitrary, but motivated from within the theory itself, because of the integral role that the evolutionary development of language plays in the phenomenon of consciousness.

6) Evolution, Memes, and Virtual Machines

Dennett's approach so far has been to start with the behaviour of humans, while treating consciousness itself as something of a "black box". Hidden mechanisms (those embodied in the MD model) were postulated as candidates for those to be found within this box. In the chapter entitled, "The Evolution of Consciousness", Dennett reverses the process. By examining the evolution of brain mechanisms, we may be able to see if any of these mechanisms can explain some of the mysterious features of conscious behaviour.

In the course of this chapter, three different media for evolutionary change are discussed: genetic variation, phenotypic plasticity, and cultural evolution. The third medium is by far the most important for explaining consciousness, in Dennett's opinion, and it allows him to introduce a new metaphor for consciousness: consciousness as a virtual machine. It will be part of the purpose of this section to examine in what way this new approach meshes with the Multiple Drafts model of consciousness introduced in chapter five, for Dennett doesn't seem to make the connections explicit.

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9Actually, Dennett allows that certain types of non-verbal behaviour can count as data for a theory of consciousness, although only if they can be given an explicit semantic interpretation. This would involve giving the subject prior verbal instruction. For instance, pushing a button (the non-verbal behaviour) could stand for the utterance "I see the red spot now", if the subject were to be told prior to the experiment that this act was shorthand for that behaviour. Also, as we shall see in the final section of this chapter, Dennett also permits, with reservations, the use of nonverbal behaviour to describe the heterophenomenological world of non-language using animals.

10All information in this section drawn from (Dennett 1991a, 173-226).
The first medium of evolution is standard genetic variation. The first self-replicators can be assigned "interests" in light of their defining interest of self-replication. They must become a "self" in a primitive sense, in that they must draw a boundary line between themselves and the rest of the world. Also, the important design feature of multiple functionality is introduced. Natural selection allows for, and indeed renders likely, the possibility of what Dennett calls the "serendipitous side-effect" (Dennett 1991a, 175): there may be one element in the brain which may perform two or more functions, depending on which functional system is currently being activated. The importance of recognizing this possibility stems from the human tendency to avoid such design features in our artifacts, because it is much trickier to work with them. Our current inability to find plausible designs for consciousness may therefore have arisen from our tendency to avoid such features in our models (already we can see how the "reverse process" in this chapter is paying off, suggesting useful avenues for further research).

The remainder of the section is devoted to an exploration of one strand of the evolutionary development of animal nervous systems. In the beginning, there were primitive withdrawal and approach mechanisms, which required that the organisms have actual physical contact with particular elements in the external world in order for them to respond in one of the two ways. Next came various types of short-range anticipation, which includes such hard-wired mechanisms as the ducking response to objects deemed looming by the visual system of the organism. This innovation had the obvious advantage of allowing one to anticipate events before they were unavoidable. The notion of an "orienting response" (Dennett 1991a, 180) is also introduced, which Dennett believes to be a necessary evolutionary step on the way to human conscious states. Orienting responses (the term is that of the psychologist Odmar Neumann) are basically episodes in the nervous system in which normal functioning is briefly interrupted, usually in the event of possible danger or other unexpected events, and a state of heightened

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11 Actually, the scare quotes around "self" should perhaps be removed, for it is an important feature of the other half of Dennett's theory of mind—the content half—that if something can usefully be described as an agent (i.e. amenable to description in terms of the Intentional stance), then it is not the case that it is a mere "as if" agent. There is no difference in kind between the primitive selves of our first self-replicating ancestors and ourselves, only a vast difference in behavioural complexity. Dennett alludes to this when he says "the point of view of a conscious observer is not identical to, but a sophisticated descendant of, the primordial points of view of the first replicators who divided their worlds into good and bad (Dennett 1991a, 176—my italics)."
vigilance and receptivity to information is created through heightened neuronal activity. This may culminate in the issuing of a "general alarm" and the mobilization of the animal's body, or, if not, the heightened activity soon subsides. Importantly for the development of consciousness, Neumann supposes that the orienting responses, initially just a reaction to emergency situations, became more frequently used due to the survival advantage that the additional informational flow imparted. Gradually, creatures evolved that were innately curious, collecting information which might not be of use immediately, but could be beneficial at some later date. Importantly, though, the information gathering mechanisms, cobbled together as they must have been from already extant anticipatory mechanisms, would not be "disinterested", but would colour the information positively or negatively depending on which mechanism was being re-deployed for this new function.

The second medium of evolution requires that the individual organisms, or phenotypes, not be completely hard-wired. Rather, they must be capable of a certain degree of plasticity: they must be able to learn within the span of their lifetimes. This capability of postnatal design fixing has the crucial effect of actually speeding up evolutionary development in the first medium of genetic variation via a phenomenon known as the Baldwin Effect. Briefly, the Baldwin Effect speeds up evolution by capitalizing on evolutionarily advantageous behaviours. Such a behaviour, known as a "good trick" (Dennett 1991a, 184), will often be of no evolutionary advantage if only a tiny fraction of the genotypic population are "wired up" for it from the start. However, if there is some plasticity in the population, and plenty of experimental "re-wiring" going on, the chances of the good trick being of evolutionary significance go up dramatically. Selection pressures will be such that the good trick will eventually move into the genotype, and this will happen in a far more brief time frame than standard genetic variation in creatures with hard-wired nervous systems.

Phenotypic plasticity is believed to have developed alongside of genetic variation. The two processes must have culminated in creatures who were flooded with various kinds of information (due to internally triggered "orienting responses") but who also possessed a great deal of functional plasticity that allowed them to respond unstereotypically to their environment.
This created another problem: given the greater flow of information and increased variability in possibility of reactions, how does the creature decide what to think about next? Given that there is no evolutionary reason to expect that there would already have been a hard-wired executive system in place, it seems much more plausible to postulate that methods of decision-making were hit upon that did not involve control from a central headquarters. Dennett believes that the most evolutionarily plausible system would be some form of "pandemonium" functional architecture, in which the various subsystems (or "demons") vie "in parallel hegemony" (Dennett 1991a, 189) for temporary control. I think that it is here that we can find the first point of contact with the Multiple Drafts model of consciousness discussed in chapter five of CE. The possibility of a multi-channel stream of narratives, which was used in that chapter as a plausible alternative to problems with the traditional Cartesian picture, has been produced (analogously, at least) via the "bottom-up" investigative methodology of this chapter. One important element is missing however. Our "streams of consciousness" (be they unitary or multiple) are unmistakably linguistic in character. The process that Dennett has so far envisaged has taken place before the development of language, a phenomenon of the last ten thousand years. This brings us to Dennett's third form of evolution: evolution by cultural transmission, a process made possible by the development of language, which in turn owes its existence to the vastly increased plasticity of the human brain.

The basic entities of this new medium of evolution are memes, a term suggested by zoologist Richard Dawkins. Memes, which are roughly ideas complex enough to be distinct, memorable, and self-replicative units, obey the basic laws of natural selection exactly. The existence of memes presupposes the existence of a transmission media, which is provided by the communicative prowess of the human species. In fact, Dennett believes that consciousness can profitably be seen as a large complex of memes, which are "installed" in us through cultural transmission. Dennett thinks that this meme-complex can be described as a virtual machine (Dennett 1991a, 210), a term borrowed from computer science which refers to a system of rules and habits that govern the activities of a real machine. In short, then, consciousness is to the human brain as software is to the computer. The analogy stops there, however, as the
architecture of the human brain, unlike that of most computers, is massively parallel, although the virtual machine of consciousness does retain the serial nature of standard, von Neumann computing devices.

This all seems a little hard to swallow, at first. It seems that Dennett's penchant for borrowing terms from other disciplines is threatening to introduce incoherence. We should ask in what sense the notion of consciousness as a meme-complex, and consciousness as a virtual machine relate to each other and to the Multiple Drafts model.

I think the relations are like this: memes are habits of thought when viewed at the semantic level, habits which can take root only in a speech-producing, sentence-emitting system. These habits are physically instantiated in the human brain in the form of coalitions of specialist subsystems that work together in coherent sequences. Somehow, says Dennett, all this parallel activity conspires together to create a virtual machine with a distinctively serial, "stream of consciousness" character. I must admit to being unsure of how to understand this crucial move on his part.

The only justification I can find in the book appears in chapter seven, and there only by way of a questionable analogy. There he mentions that a serial (or "Von Neumanesque") real machine can, in theory, mimic a multi-channel parallel architecture virtual machine (although a price is paid in computational speed, proportional to the number of channels of the machine to be mimicked). But then Dennett goes on to say this:

Just as you can simulate a parallel brain on a serial von Neumann machine, you can also, in principle, simulate (something like) a von Neumann machine on parallel hardware, and that is just what I am suggesting: Conscious human minds are more-or-less serial virtual machines implemented--inefficiently--on the parallel hardware that evolution has provided for us. (Dennett 1991a, 218)

Nowhere in the text does there seem to be any further argument for the actual feasibility of any such inversion of the standard idea, and I think it is at least not immediately obvious that we should accept this move without additional justification. Some further work must be done in order to make this bold claim more plausible, especially in the light of such admitted disanalogies as the method of installation for von Neumann machines ("loading" off a disk etc.) and for human brains (learning, cultural transmission).
Putting this difficulty aside, however, the relations of the meme-complex and virtual machine metaphors to the MD model are less problematic. The memes, or habits of thought, are responsible for the individual "narratives", co-occurring all over the brain in the various processing sub-systems. In some abstract sense, one could say that these narratives are composed of memes, in that these memes 'take advantage' of the brain's plasticity in order to rewire it so as to allow the brain to become a 'meme nest'. The virtual machine idea corresponds to the notion of the product of all these spatially distributed processes: "something rather like a stream or sequence", although differing in its multiplicity (Dennett 1991a, 135). Tenuous as this notion sounds, it is a necessary component of Dennett's theory, for he needs the assumption of something unitary as the source of the text which provides the data for the heterophenomenological method. It doesn't matter that this unitary source turns out to be an abstraction, although the argument here looks blatantly circular unless you accept some version of my "package deal" interpretation of Dennett's theory.

7) Dennett vs. the Philosophical Tradition

Dennett has chosen to save his treatments of the traditional philosophical problems in his field to the end of the book. His thinking is that one is tempted to fall prey to one's ingrained intuitions, when confronted with cleverly designed thought experiments. Mostly this is because there has, until now, been no coherent alternative model to the Cartesian Theater. But now that we have the MD model to turn to, we have the intellectual tools to combat the seductive power of these thought experiments.

One such thought experiment involves the possibility of zombies, creatures that are so much like us behaviourally that they would be indistinguishable from real human beings. The difference is that, unlike us, they have no inner conscious life. Their body movements and verbal utterances are entirely mechanical and thoughtless. We are encouraged to accept the possibility of such creatures (our best friends could be zombies) by the implicit assumption that objective
behavioural evidence is insufficient for determining consciousness: only subjective introspective evidence will do.

Dennett takes the verificationist hard line here. If there were such a creature, a creature so behaviourally complex as to be indistinguishable from real people, that creature must possess full-blown conscious capabilities of the sort that we possess. Just this much will not convince any hard-core introspectionist, however, since his enabling principle says that behavioural evidence is simply not enough when it comes to consciousness. I am not sure if there will ever be a knockdown argument against the introspectionist, but Dennett cleverly makes use of the machinery of his new metaphors to make his view a lot more palatable. In this case, an interesting feature of the virtual machine analogy is utilized to show what kind of zombie, structurally, we need to fit the behavioural bill. Given that, and a provisional acceptance of Rosenthal's definition of consciousness as higher order states that are about lower order ones, Dennett can show that such a zombie would be conscious after all.

A convincing zombie would have to be able to report or reflect on its own states and assertions, in order to interact with others via appropriate responses in a Turing test. However, like us, it need not have (and likely doesn't have) direct access to the processes underlying the production of its assertions. This is what makes the virtual machine metaphor so appropriate, says Dennett, since users of a software program do not have access to the physical goings on in the computer, despite their ability to manipulate it. The important difference is that in our zombie (and in ourselves, Dennett wants to suggest) there is no separation between presentation and appreciation by a conscious observer (i.e. there is no user illusion, to borrow a phrase from computer terminology). The zombie's apprehension that it is conscious is accomplished by the interactions of the various subsystems in its zombie nervous system. There doesn't have to be a single place where either presentation or appreciation happens.

According to Rosenthal's analysis, which is couched in terms of folk psychology, consciousness is constituted by unconscious higher order states (its "awareness" or ability to track what it has just asserted) which are about lower order ones (the assertions) (See Rosenthal 1990). It follows, on Rosenthal's theory, that the kind of zombie that is philosophically important
must in fact be conscious, or must render itself so as soon as it starts communicating with others. Of course, this conclusion is provisional on accepting Rosenthal’s analysis, which Dennett thinks helpful, but too indebted to folk-psychological categories of beliefs, thoughts, and desires. These categories will eventually be replaced, along with the notion of the possibility of zombiehood, by some successor science of the mind.\textsuperscript{12}

Another thought experiment that Dennett considers is that proposed by the philosopher Thomas Nagel. Nagel poses the question, “What is it like to be a bat?” and then goes on to claim that we have not the means with which to answer that question, due to the unbridgeable gulf between the subjective and the objective points of view. No matter how much we learn of the physiology and behaviour of the bat, says Nagel, we can never learn what it is like for the bat to experience the world (Nagel 1974, 16).

Dennett, of course, is a champion of the objective point of view and takes issue with Nagel’s analysis. He outlines two related ways in which we could gain an understanding of what it is like to be a bat through objective, third-person means. The first is a variant of the heterophenomenological method, in which plausible narratives are suggested and then rigorously checked by means of investigations of bat physiology and behaviour. For example, if a narrative includes a description of a predatory bird attacking with pinfeathers spread at a distance of three meters and we have experimental evidence demonstrating that a bat’s echolocation system neither operates at that distance nor has the definition to distinguish pinfeathers, we are permitted to reject these aspects of the narrative.

The one problematic aspect of this approach is that it tends to be all negative. It provides us with a method which permits one to discern that of which a particular non-human animal could not be conscious but fails to tell one anything about what, if anything, such a creature is conscious of. Perhaps, then, all animals are merely mindless automatons. To reach this

\textsuperscript{12}Well, this isn’t quite right. Dennett has always maintained (in the Intentional Stance, for example) that we quite likely will not stop using terms such as ‘belief’ and ‘desire’, due to the predictive advantages that are gained by treating certain appropriate subjects as rational agents. But when we look at the brains of these same subjects, we will find nothing there that corresponds to these categories. To tie this in to theory being put forth in CE, we can say that we can and should use the concepts of belief and desire, because it seems to subjects that they have such entities (i.e. it is part of their heterophenomenological world). Dennett believes that these concepts will turn out to be fictitious in a sense (not corresponding to actual mechanisms in the brain), but this does not entail that we should stop making use of them.
conclusion, as Dennett points out, is to fall victim to the Cartesian Materialist trap. To say that a bat brain is just a bunch of subsystems unconsciously passing information to one another is to assume that, to be conscious, there must be an inner observer somewhere in the system to whom the information is displayed. Dennett's MD Model shows us that consciousness need not involve such an inner observer. Since there is no inner agent in us and we are conscious, we cannot disqualify the bat for not possessing one.

Given the negative nature of this procedure, is there another way in which we can determine to what extent a bat is conscious? Dennett believes that there is such a method, and it is the same one that he has suggested for the investigation of human consciousness: the heterophenomenological method. The obvious problem here is that the HP method starts with interpreted speech behaviour as its primary source of data, and bats, along with the rest of the animal kingdom, can't talk. But, for Dennett, verbal utterances are just one form of behaviour, and animals can behave in nonverbal ways that can provide a basis for a heterophenomenological world. The discipline of cognitive ethology is committed to this idea although the problems of setting up experiments have been well documented, since the animal subjects can't be "set up" by means of linguistic instructions. Rather than claiming that this fact is a merely epistemological problem, however, Dennett maintains that the lack of language indicates that a great many of the more sophisticated mental activities that we possess could not be present in such creatures, for the simple reason that they would not have had the opportunities to develop such activities (Dennett 1991, 446).

Given the emphasis that Dennett has placed on the importance of language in human consciousness, one is tempted to suspect that he might claim that languageless creatures could not possibly be conscious, but then one would be neglecting a key claim that Dennett is making about consciousness. Consciousness, like everything else in the natural world, is not an "all-or-nothing property that sunders the universe into two vastly different categories: the things that have it...and the things that don't" (Dennett 1991a, 447). So, although language vastly enhances the diversity and size of the heterophenomenological world of the subject, it does not have the added property of "switching on" consciousness. We do no favours to languageless creatures.
(and deaf-mutes, before adopting sign language) by endowing them with a rich mental life, a life which they could not possibly have due to their limited abilities, but neither should we deny them any sort of mental life at all.

But is Nagel forced to back down on his claim that we could not know what it is like to be a bat? Nagel is committed to the idea that no amount of objective evidence (in this case, nonverbal behaviour, utilized to create a heterophenomological world for the bat) will ever bridge the gulf between what we say about how it is with the bat, and how it actually is with the bat. That gulf is uncrossable in principle for Nagel and for Dennett to come along and say, 'Look, we can use my HP method to describe, in its entirety, the experiential world of the bat' is blatantly to beg the question against Nagel. Nagel's whole point is that there are certain features of our own conscious experience which are known to us prior to and independently of any way in which we might choose to describe or redescribe these features. If a bat is conscious, then there will be analogous intrinsic features of its conscious experience, and no amount of description in a language will capture these features.

I believe that impasses like this cannot be solved by philosophical argument and a pragmatic approach is to be recommended (although Nagel would accuse me of being too intellectually weak-minded to deal with the real philosophical issues). We may even grant that there is some possibility that Nagel is right, that there is a principled impossibility in trying to understand consciousness subjectively, but we must realize that to go the whole way with Nagel, to rule out a priori any hope of progress through objective means, would be to disregard the results that have been flooding in from various promising avenues of research (artificial intelligence, cognitive science, connectionism etc.) in favour of understanding via "a more direct approach" (Nagel 1986, 16). This approach is, predictably, unspecified by Nagel, requiring "an order of intelligence wholly different from mine" (Nagel 1986, 12). The advantage of Dennett's model and his whole approach is that it is amenable to empirical testing, drawing from and ramifying into a whole array of scientific disciplines. For these reasons, I believe we are much better off embracing such an approach, continuing with empirical research and waiting to see what conceptual revolutions are in the offing. Nagel's approach seems to wallow in mystery and
isolate the problem as one that can be dealt with only in the hermetically sealed world of professionalized philosophy.

Related to the issue of what it is like to be a bat is the philosophical topic of *qualia*. Qualia, though notoriously hard to define, are roughly the subjective, phenomenal aspects of a sensory experience: the particular way a certain things tastes, looks, smells, feels, sounds to you. Supporters of the notion of qualia are apt to say that qualia themselves are separable from the physical causes of our experiences as well as our reactive dispositions to them. They are special properties, in that they are *ineffable, intrinsic, private,* and *directly apprehensible.*

In "Quining Qualia", Dennett runs through the standard "qualia inversion" thought experiments and criticizes them in an attempt to show that the pre-theoretical source concept of qualia that the philosophers are drawing from is itself inherently ambiguous and incoherent (Dennett 1988). The interpersonal version of this thought experiment is dealt with rapidly, for most of the disputants are in agreement that this version can't provide support for a robust notion of qualia. In this version, we are to imagine a machine to which two people are hooked up, one person receiving the visual experiences of the other. Presumably, if the colour spectrum comes out inverted, according to the reports of the recipient, this would be evidence for qualia inversion. But, says Dennett, this would just be evidence that the machine was exactly one hundred and eighty degrees out of whack, and the fidelity of such a machine would be calibrated by getting the reports of the two subjects to match. The interpersonal version of the argument is therefore incapable of proving the existence of qualia-type properties.

The second version of the argument, the *intrapersonal* version, at first seems to secure a robust notion of qualia, but on closer inspection can be seen to be ambiguous between two possible interpretations. In this thought experiment, we are asked to imagine a neurosurgical rewiring in the perceptual machinery of the subjects brain, which causes the subject to report that what was once green is now red, what was once yellow is now unmistakably blue, *etc.* It seems

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13In my discussion of the qualia debate I am going to discuss both Dennett's 1988 article entitled "Quining Qualia" and chapter 12 of *CE* (entitled "Qualia Disqualified") for, although the second treatment of this topic is more intimately tied to Dennett's new Multiple Drafts model, the reasons for Dennett's eliminative stance towards qualia as well as an explanation of why we intuitively think that there are properties of our phenomenal experience which are ineffable in a special way are more clearly developed in the first article.
as if our sensory experience does in fact have properties that correspond to our basic notion of qualia. But before we can jump to this conclusion, Dennett points out that there is another way in which the subject would report the same thing, a possibility that the qualophile must accept, unless he is willing to drop the notion that qualia are separable from our reactive dispositions to them. The first interpretation, when spelled out, is basically the position that the subject's perceptual machinery is altered at a very early stage, causing all 'downstream' events to be the reverse of their normal values. This would have the effect of inverting her qualia. The second interpretation, equally valid given the initial assumptions, is that your qualia remain untouched but your memory links to colours you've seen in the past (by which you make comparisons to the colours you are now seeing) are systematically inverted. It is important to note that these two distinct possibilities would be indistinguishable from the inside; our subject could not be relied upon to tell the difference between these two obviously different states of affairs.

This should start reminding us of Dennett's important interpretation of the colour phi phenomenon in chapter five of CE. This verificationist interpretation is not dealt with in "Quining Qualia", but is directly addressed in chapter 12.14 For the first possibility, in which the neurosurgical switching is made early and the qualia is thus altered, is analogous to the Stalinesque or pre-experiential tampering, while the second interpretation is Orwellian in nature, for the qualia do not change but the subject has no access to them due to the post-experiential tampering with the subject's memory links. This analogy makes the situation clear, in that Dennett is trying to demonstrate that an endorsement of the notion of qualia requires a commitment to the idea of the Cartesian Theater. Qualia are none other than objectified "real seemings" that compose the show that is viewed by the inner eye at the precise moment of consciousness. For Dennett, there is no precise moment of presentation in consciousness in this magical arena, so there can be no qualia.

14 Although I lack the space to go into the interesting argument in "Quining Qualia" in depth, I would like to outline its structure. The result of the intrapersonal argument (its ambiguity between the two possibilities) suggests that a mistake has been made in the initial assumption that our qualia and our reactive dispositions to them are separable. But if we instead admit that changes in our reactive dispositions change the qualia themselves, we save the property of direct apprehensibility but now must admit that qualia are not intrinsic (i.e. non-relational, atomic) properties. This leads Dennett to conclude that our pre-theoretical notion of qualia, upon close inspection, is revealed to be inherently ambiguous and ceases to become a useful guide for our intuitions. There is nothing that fits the description of qualia, so why not "quine" it, by denying the existence of any such property of sensory experience?
Taken on its own, this argument would be unpersuasive to a qualophile, because it relies in its entirety on the reader's previous acceptance of the Multiple Drafts model. If you deny the validity or coherence of the MD model, then you can hold onto the notion of qualia (although I believe that Dennett has shown in "Quining Qualia" that the pre-theoretical source concept of qualia itself is incoherent [see footnote 14]). But we must remember Dennett's overall strategy in this latter section of his book. He has established a powerful alternative model to Cartesian Materialism, and he is here concerned to show how that model solves problems that have seemed intractable from the traditional perspective. The literature surrounding the issue of qualia has grown large and increasingly convoluted, as Dennett notes, and there appears to be no progress or developing consensus. Such a state of affairs is often a clue that our ways of thinking about an issue must change at a deep conceptual level. Dennett has introduced such a radically different way of thinking, and the outcome is that it is no longer profitable to use the word "qualia" in order to get a grasp of the nature of perceptual processes, in the same way that it is no longer profitable to use the word "phlogiston" when discussing the nature of combustion.

However, although Dennett can legitimately deny the existence of qualia altogether, he can't deny that there seem to be qualia. That is, the heterophenomenological world of the subject includes seemingly ineffable properties like "the way red looks to me". By his own method, Dennett is bound to explain why it is that we are prone to utter sentences about such putative properties, despite his denial that such properties exist. In chapter 12, Dennett gives his answer: he identifies "'the way it is with me' with the sum total of all the idiosyncratic reactive dispositions inherent in my nervous system as a result of my being confronted by a certain pattern of stimulation" (Dennett 1991a, 387). In "Quining Qualia", however, I think that this opinion is more fully explained by means of the following example.

A rough approximation of the way an osprey's cry sounds can be given verbally, but there seems to be an ineliminable gap between the verbal description and the way one experiences the sound aurally. This gives rise to our intuition that we are being presented with a private, ineffable sound quale in the latter instance. However, we need not jump to this conclusion, but rather can say that how the experienced sound seems to us is the deliverance of a highly sensitive
and informationally complex portion of our nervous system. The way it seems to us is practically ineffable due to its informational complexity, and it is private in the sense that we are disposed to react to this information in personal and idiosyncratic, but publicly discoverable, ways (not all individuals have the same dispositional responses to similar sensory stimulations). So when (heterophenomenologically) a subject claims to be pointing inwards (intentionally) to an inner object (the quale) we can say instead that he is referring to the current state of his sensory property-detectors. Brute, physical differences in the chemistry of the brain can in fact anchor dispositionally different reactions, such as our disposition to say that we are now imagining a purple cow as opposed to a green one.

It is important to remember that Dennett is not trying to identify qualia with the deliverances of our property detectors. For one thing, these "deliverances" are not extra things at all (Dennett's use of this word is, I think, somewhat misleading for this reason), but are instead captured by our various reactive dispositions to the sensory input and the processing that goes on in the nervous system. To identify qualia with our property detectors violates too many of the alleged properties that qualia have, and in fact there is nothing that has those properties. Much better, then, to take an eliminative stance towards qualia, an artifact of the rejected Cartesian Theater, and fill the vacuum with discriminative states of nervous systems with "primary" mechanistic/chemical properties and "secondary" behavioural/dispositional properties. In this way we can explain why it is that people seem to have qualia, without lapsing into Cartesian Materialism.

8) Conclusion

In this chapter I have described and critically examined Dennett's theory of consciousness, a theory which is composed of a new method of describing the data, the heterophenomenological method, and a model of consciousness which, although initially counterintuitive, is shown to be both powerful and elegant. However, Dennett sometimes talks as if his theory provides a straightforward refutation of those philosopher's (like Nagel) who believe that consciousness is a
phenomenon that is somehow unique and irreducible. I don't believe such a refutation is possible, because the critical assumption that subjects don't have privileged access to their own conscious states is embedded in the heterophenomenological method, the very method that Dennett claims to be neutral to all disputants. But I have also argued that this fact need not and should not lead us to reject Dennett's promising theory, if we are willing to accept a version of my "package deal" interpretation. Such an interpretation will not appeal to those of a foundationalist bent, but it is my belief that in the philosophy of mind as it is elsewhere, there is no firm, neutral bedrock to be found. We must therefore find a way of talking about consciousness that is consistent with our best scientific theories, and be willing to countenance the possibility of the counterintuitive implications that may arise.
1) Introduction

This chapter focuses on four crucial themes which I distinguish in the work of Broad, Ryle, and Dennett. The differences and similarities in their views with regards to the distinctions I have drawn up concerning these themes are intended to show in what direction the general tide of philosophical opinion has moved over the course of the century. Here are the distinctions:

i) Cartesianism/non-Cartesianism

ii) Pre-linguistic intuitions/the impossibility of such intuitions (i.e. language as providing the framework for what can be thought)

iii) Mind as substance/mind as category

iv) Emergentism/non-emergentism regarding the mind/mental features.

Broad will fall on the left-hand side of these four distinctions (although he explicitly denies endorsing a substantival conception of mind), while Ryle and Dennett will land on the right. When we look at these distinctions, I think that we can see that they are intimately inter-related and that the first distinction supplies the key link. I'll argue that the idea of pre-linguistic intuitions is implied by the Cartesianism that both Ryle and Dennett attack, and a substantival conception of mind is the natural outcome. To those Cartesians resistant to the latter, as Broad claims to be, emergentism suggests itself as a viable alternative if only because it still allows one to countenance the possibility of pre-linguistic intuitions. But I will show that this emergentist position is unstable in and of itself, as well as in the context of Broad's commitments to the other distinctions. Despite his insistence otherwise, he is nevertheless implicitly committed to the existence of two substances. Although Broad's emergentist doctrine may perhaps be of little interest from a contemporary point of view, his espousal of it is a direct result of trying (unsuccessfully, I'll argue) to deny the left hand side of the third distinction, while asserting that
of the second. This tactic is also implicit in contemporary philosophers like Nagel and Searle, who are in opposition to what Rorty has called "the Ryle-Dennett tradition" (Rorty 1982, 325).

2) The Case against Cartesianism

Both Ryle and Dennett are concerned to stamp out any Cartesianism wherever they find it. A substantial part of both *The Concept of Mind* and *Consciousness Explained* is concerned with accomplishing this task. In fact, it could be argued that in both books this deconstruction will prove of greater lasting value than the particular positive programs being advanced. The Cartesianism/non-Cartesianism distinction is also, as I indicated in the introduction, the key to understanding the relationships among the four distinctions that I discuss in this chapter.

Cartesianism, as I understand the view, is the commitment (explicit or implicit) to two realms: the mental and the physical. I am using the word realm to indicate that the mental and the physical are assumed by all Cartesians to be somehow distinct, but I should like to remain neutral for the present as to whether we are talking about actual substances or properties/characteristics of a single substance (matter). Regardless of the details of any particular Cartesian doctrine, however, it is always the case that the contents of the mental realm which pertain to our own mind are known to us directly (i.e. non-inferentially), often through some faculty of introspection. This faculty is the source of our pre-linguistic intuitions, of which I will have more to say in the following section. Our mental life is private, and cannot be observed by others, being known to them only through evidential inference. Here we can see a principal point of contact between our distinctions, one that remains constant regardless of the particular brand of Cartesianism being espoused. The mind is the locus of subjectivity, providing the intrinsic qualitative feature of "what it is like to be" that creature, to borrow Thomas Nagel's phrase. This feature is basic and ineliminable, say all Cartesians, and it is guaranteed by our direct access to our inner states.

Cartesianism is most commonly associated with the philosophical position of dualism. This view asserts that every human being is a compound of two distinct substances, mind and
body, which interact in various ways. Very few contemporary thinkers in philosophy or the sciences actively endorse dualism, because of a number of well-known problems with which it is associated (See Churchland 1990, 7-22; Dennett 1991a, 33-39). Regardless, many of these theorists have put forward doctrines that betray an implicit commitment to a model of mind incorporating the fundamental tenets mentioned above. Thus, we can see that Cartesianism is not so much an explicit philosophical position as a collection of habits of thought which has persisted despite the near-universal denial of the doctrine which gave rise to it.

Broad can be counted among this group. He explicitly rejects cartesian dualism, and tentatively accepts a quasi-monist doctrine he calls "Emergent Materialism". And yet, his criticisms of other possible views, such as reductive materialism (somewhat inaccurately equated with Behaviourism by Broad) betray a host of Cartesian intuitions, as I have shown in chapter one. Primary among these is what I referred to in that chapter as the "introspectionist assumption", which we can now see to be a commitment to the notion of pre-linguistic intuitions. It is this commitment, more than any other, that drives him to adopt a mysterious emergentist doctrine, a view which, on the face of it, seems more opaque and less promising than other views that he recognized as being available options.

If I am right that a commitment to pre-linguistic intuitions is symptomatic of a fundamentally Cartesian outlook, Cartesian thinking can be seen to permeate the important arguments in MPN. If you can isolate and reject these arguments, any motivation for accepting Broad's emergentist doctrine is substantially weakened. A focused attack on the key assumptions underlying these arguments is to be found in both the work of Ryle and Dennett, as I mentioned at the outset, so it is to their views on this topic that I now turn.

Ryle is concerned to attack the "Official Doctrine" of the nature and place of minds. This doctrine, he claims, is a confusion of a special sort, namely a category mistake. Our theories of mind have absurd consequences because we have mistakenly placed the term 'mind' in the same logical category as the term 'matter'. They are both *things*, goes the official line, just different kinds of things. 'Things' are centres of causal processes and events; so both minds and matter
have this characteristic. Descartes, influenced as he was by the mechanics of matter of his contemporary, Galileo, therefore set out to develop a para-mechanical theory of mind.

For Ryle, when we use mental terms, we are not making allusions to ghostly para-mechanical events taking place in a private theatre but to dispositions. Dispositions can be seen as patterns of behaviour. A disposition isn't a 'thing' in the same way that matter is a 'thing': it is of a different logical type. Once we recognize this, we can safely talk of minds and of matter, but we can avoid the mistakes and absurdities that arise when we treat 'mind' as being of the same logical type as 'matter'.

Ryle's attack is launched specifically at a dualist form of Cartesianism. That is, he discusses a form of Cartesianism in which the mind and the body are regarded as two distinct 'things' or substances (Ryle 1949, 13-25). Perhaps he failed to notice that there is room for a Cartesian doctrine which is explicitly materialist, as Broad's claims to be. It may also be the case that such views are subtly incoherent, and he recognized this. The question of whether Cartesian intuitions can be made to co-exist with a non-substantival conception of mind will be postponed for the present. However, it is the case that even contemporary thinkers are prone to slip Cartesian assumptions into their materialist theories, and Daniel Dennett's deconstructive focus is to eradicate this residual "Cartesian Materialism".

For the most part, Dennett thinks it no longer necessary to attack Cartesian dualism. This is perhaps to a large extent due to Ryle's work in this area, and also because perennial problems (such as the conservation of energy law violation) are still not satisfactorily eliminated and, perhaps most importantly, because it is a fundamentally anti-scientific doctrine: "Given the way dualism wallows in mystery, accepting dualism is giving up" (Dennett 1991a, 37).

However, despite the near-universal rejection of dualism by philosophers and scientists alike, there remains a way of thinking, a holdover from dualism, that leads to unrealistic models of how the brain functions. The mistake is to suppose that there is a central area in the brain where incoming information is experienced and from which all consciously controlled behaviours emerge. We are led to postulating such a theatre because we are accustomed to speaking of a human being as a 'point of view', and we continue to look for a point of view inside
the brain. But we are wrong to assume that, since the input and output is relatively clear, there
must be an actual point after sensory stimulation and before the muscle response where the
experience is "experienced". There is no reason to assume this, and from what we know of brain
structure, plenty of reason to reject it. Talk of a 'point of view' ceases to be useful at the level of
microscopic time intervals involved in content discriminations, where such a point would have to
be "smeared over a large volume of the observer's brain" (Dennett 1991a, 107). There is, and can
be, no center of intrinsic subjectivity, and it is this Cartesian idea, a holdover from old dualist
ways of thinking, which is the "Cartesian Materialism" that Dennett is targeting for criticism.

So, Dennett is also fundamentally non-Cartesian. For him, as for Ryle, we will not have
an adequate understanding of issues in psychology until we remove all implicit allegiances to the
image of human beings that arose in the seventeenth century. Of course, this image must be
replaced with a new picture or set of metaphors, one that is more sensitive to the limitations
imposed by evolution and the actual structure of the brain.

I have said that Cartesianism implies a commitment to pre-linguistic intuitions. Next I
will discuss what it means to commit oneself to this notion and spell out what the alternative is.
This will be important for examining whether a commitment to pre-linguistic intuitions can be
coherently separated from a substantival conception of mind.

3) Pre-linguistic Intuitions

a) What is an intuition?

The notion of an intuition is an important one in the philosophy of mind. Richard Rorty,
in his discussion of it in "Contemporary Philosophy of Mind" claims that an adherence to this
idea is what separates the thinking of philosophers like Broad, Thomas Nagel, and John Searle
from those like Ryle, Dennett, and himself. For Rorty, to cling to the concept of intuition is to
endorse a metaphilosophical position which insists on our ability to obtain some sort of pre-
linguistic absolute knowledge.
First, we must get clear on just what sense of the term 'intuition' Rorty is making use. An intuition, in this technical sense, is 'a non-linguistic mode of relating to the essences of objects' (Rorty 1982b, 186). Terms such as 'privileged representation', 'direct awareness', and 'direct introspection' convey similar, or related, meanings. They are meant to suggest that human beings possess a special faculty or ability by means of which we are able to make unquestionable knowledge claims of certain specified kinds. Knowledge claims from intuition are of a radically different type than other knowledge claims. These intuitions were thought to reveal to us the essential nature of our minds, something we could never capture in our language because this knowledge is somehow more direct and prior to language. What's more, any attempts to describe mental phenomena must conform to any ontological implications of our intuited knowledge. No amount of scientific evidence could be amassed that could deny that we have qualia, for example.

Also, defenders of intuitions believe that a scientific, 'objective' account of mental phenomena will invariably leave out something important in its explanation, something unattainable from that point of view. This is why most intuition-friendly philosophers have claimed that attempts to give a materialistic theory of mental phenomena (e.g. behaviourism, artificial intelligence, functionalism) are doomed to failure. These attempts obviously leave something out, they claim, something we can become aware of just by introspecting.

b) Pre-linguistic vs. pre-theoretical intuitions

Before seeing where each philosopher stands with regards to intuitions, we should distinguish 'intuition' in this technical sense and intuition of a more mundane type. This second kind of intuition refers to our pre-theoretic tendencies to think along certain lines. This is merely what we would be disposed to say of any particular area of study at the outset. Importantly, these intuitions are defeasible. That is, no theory of mental phenomena must conform to them, although we are often disposed at the outset to think that they should.

A very clear example of the difference can be found, as Dennett points out, in the philosophical views of Wilfrid Sellars (Dennett 1982, 352). Sellars is famous for his demolition
of the concept of the Given, the notion that we are directly acquainted with something (i.e. that we have intuitions in the technical sense). However, Sellars has also maintained that we have to make room in our scientific ontology for qualia, or at least their scientific successor-concepts. Is this an incoherence on the part of Sellars? Not straightforwardly so, for Sellars is not claiming that he has direct unquestionable knowledge that we must make room in our ontology for the way in which things seem to us, but merely that he is inclined to think that qualia cannot be eliminated without thereby leaving out something important. That is, intuitively, sense two, qualia seem indispensable.

We must, therefore, be careful what kind of intuitions are being alluded to when various philosophers speak of 'what is left out' of a particular theory of mind. I think a strong case can be made that, in many instances, the technical sense is being utilized, but we must also recognize that these philosophers may retreat to the second sense of the term, without removing all motivation for their claims.

c) Broad, Ryle, and Dennett on intuitions

It is my belief that Broad does in fact commit himself to the idea that we have intuitions in the technical sense. He betrays (or advertises?) this conviction in various places. For instance, in chapter two he argues that no mere difference in complexity could account for the difference between a deliberate and a reflex action. Why? "There is a clear introspective difference between the mental accompaniment of voluntary action and that of reflex action...and the difference is qualitative" (Broad 1925, 112–emphases added).

One might argue that Broad is relying on this alleged introspective difference by claiming that it renders the argument from structural complexity to the denial of mind/body interaction (as described in MPN on p. 110) less intuitively (sense two) probable, but Broad says something logically stronger than that, that the argument is invalid (Broad 1925, 110). I cannot see how he can make this claim, unless he believes that the introspective evidence provides us with unquestionable knowledge (knowledge by intuition) about the way things are. There are many
such arguments from 'introspection' and 'direct awareness' in *MPN* to various conclusions. For instance, when arguing against behaviourism, Broad says such things as:

> It is plain that our observation of the behaviour of external bodies is not our only or our primary ground for asserting the existence of minds or mental processes... (Broad 1925, 613)

> If we confine ourselves to bodily behaviour it is perfectly certain that we are leaving out something of whose existence we are immediately aware in favourable cases. (Broad 1925, 614)

It is my belief that most, if not all, such arguments can be shown to be arguments from intuition in the technical sense.

Ryle, on the other hand, is one of the first philosophers to throw a wet blanket on the idea of direct awareness. We find his most explicit discussion of this in the crucial chapter entitled 'Self-knowledge'. In it, he attacks what he sees as the official doctrine's theory of "twofold Privileged Access" (Ryle 1949, 149): consciousness and introspection. The official doctrine claims that, through consciousness (a kind of self-luminescence of mental states), we know ourselves in an immediate non-dispositional sense. Introspection is believed to be a kind of perception, but one that is private and unsusceptible to illusions of the kind to which sense perception is vulnerable.

Ryle argues that both these modes of self-knowledge are untenable and that we therefore don't have privileged access to special internal facts. For Ryle, "the sorts of things that I can find out about myself are the same as the sorts of things I can find out about you and the methods of finding them out are much the same" (Ryle 1949, 149). In saying this, Ryle is rejecting any form of indubitable direct awareness.

This is a change of the utmost significance in philosophy of mind. If we deny intuitive knowledge with Ryle, we are able to postulate theories of mind that no longer need to conform to this body of putative unassailable truths (i.e. the deliverances of introspection and the phenomenological aspect of consciousness).

However, there are problems with Ryle's rejection of introspection and his replacement of it with retrospection. There are passages in Ryle which seem to indicate an implicit allegiance to the existence of introspectible inner events, despite his explicit denial that such things exist.
Also, an account in terms of retrospection still leaves it open to a Cartesian to claim that it is inner happenings that have been retrospected.1

Dennett recognizes these problems and agrees (with Rorty) that Ryle got off on the wrong foot in denying the existence of introspection. We can countenance the fact that we do have knowledge of inner happenings without making the claim that this knowledge is somehow more direct than our knowledge of the 'external world'. Dennett agrees with Ryle that we don't have direct, privileged access to inner events, but believes that this does not entail that we don't have access of any kind:

There is a special directness, an asymmetry between our relation to our own thoughts and our relation to the thoughts of the others...it is an epistemological asymmetry, but one that yields no foundations. (Dennett 1982, 351)

I believe this insight, that there are no 'deliverances from intuition' and therefore no epistemological bedrock to which our theories must conform (an attitude to philosophy of mind in particular that Quine, Wittgenstein, and Sellars were applying more generally) is one that has allowed for the possibility of real progress in the field.

We have discussed what it entails to be committed to the notion of pre-linguistic intuitions and have shown that Ryle and Dennett are fundamentally opposed to the notion. What exactly, though, is the alternative? Richard Rorty, in a paper entitled "Holism, Intrinsicality, Transcendence" (Rorty 1993), suggests that to accept this strong notion of intuition (as Searle, Nagel, and Broad do) is to believe that "the sources of philosophy are preverbal and often precultural, and one of its most difficult tasks is to express unformed but intuitively felt problems in language without losing them" (Nagel 1986, 11). Denying it involves saying just this: the limits of thought coincide exactly with the limits of language. What cannot be said, cannot be thought.

Rorty thinks that both Ryle and Dennett are (whether they know it or not) applying this metaphilosophical view to the philosophy of mind, in that they both reject the idea that there are

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1In chapter two, I suggested an alternative interpretation of Ryle which made sense of these apparent tensions in his view, which involves the insight that Ryle's project was never one that dealt with ontological questions involving the denial or assertion of inner events. It may not have been contrary to his view to assert that there are inner events to which we have access in Dennett's causal/sub-personal sense. See that chapter for more details.
certain intuitively known entities which any complete philosophy of mind must include. For example, our best theories need not have to relate brains and behaviour to qualia or volitions (known pre-verbally or intuitively), but need only relate brains and behaviour to talk about qualia and volitions. As Rorty notes, this is something that both Ryle and Dennett have been concerned to do:

Holists like Wittgenstein, Ryle, and Dennett—people who specialize in replacing intrinsic features with relational features—recognize their obligation to explaining everything anyone has ever talked about. But they think that, just as it counts as an explanation of solar motion to explain why people used the term "solar motion", so it should count as an explanation of qualia to explain why people talk about intrinsic, non-relational features of conscious experience. (Rorty 1993, 185-186)

Now, if you were to oppose this new tradition, and insist on pre-linguistic intuitions, what metaphysical view comes most naturally? Here Rorty recaps the historical picture he drew up in Philosophy and the Mirror of Nature (Rorty 1979, 17-69). Descartes created the notion of mind as we now know it. This mind "knew its own contents and its own intrinsic nature independently of its knowledge of anything else" (Rorty 1993, 193). We can see that a substantival conception of mind is intimately connected with an embracing of the notion of pre-linguistic intuitions. Various philosophers, Nagel and Broad included, have tried to divorce themselves from substance dualism, and yet remain committed to direct pre-linguistic intuitions. In the next section we will look at the distinction between mind as substance/mind as category and see if there really is any room for views such as these.

4) Mind as Category

For Ryle, the family of concepts that we associate with the concept of mind are related because they belong to one kind of logical type or category. However, Ryle believes that the 'official doctrine' (the dogma of the ghost in the machine) is mistaken because it has allocated this family of concepts to the wrong categories, namely those which treat of mental terms as if they refer to events and processes. Ryle believes that when we ascribe a mental term to someone else, we are attributing a disposition to that person. Her behavior is being contextualized to a pattern.
It is here that there is the strongest point of contact between Ryle and Dennett, for contextualizing behaviour to a pattern is exactly what we do when we choose to adopt the Intentional Stance towards the behaviour of another entity. Dennett can be seen as continuing Ryle's project in this respect, but using updated terminology and a keen awareness of the importance of Quine's work in radical translation. Dennett recognizes that attributions of intentionality (e.g. of beliefs and desires) depend upon interpretations of the phenomena, and these interpretations (like Quine's radical translation) involve assumptions of rationality. The result is similar: "Quine's thesis of the indeterminacy of radical translation carries all the way in as the thesis of the indeterminacy of radical interpretation of mental states and processes" (Dennett 1994, 239).

For Dennett, mental talk doesn't really refer to events or processes. Terms like belief and desire are what he sometimes alludes to as abstracta, like centers of gravity or parallelograms of force (Dennett 1991b, 28). This is, I think, closely allied with what Ryle was trying to get at by saying that mental terms should be allocated to the logical category of dispositions rather than to that of events and processes. Dennett doesn't use the language of categories and category mistakes (he has referred to Ryle's use of these terms as "tantalizing but unpersuasive"—Dennett 1994, 242), but both share a common outlook in their personal-level theories of the mental.

What Dennett has called the 'sub-personal level' was never addressed by Ryle. A sub-personal theory of the mental is one that looks for the causal, neurobiological structures that are responsible for the behavioural patterns that make it possible for us to adopt the intentional stance in the first place. Confusion about what Ryle was attempting to do in The Concept of Mind has led to much misguided criticism of Ryle.

Various philosophers, such as Jerry Fodor (Fodor 1975), have criticized the Rylean account because it replaces causal explanations with conceptual explanations regarding mental phenomena, incorrectly supposing them to be in conflict. However, science can give causal (i.e. sub-personal) accounts of Ryle's disposition-talk, by finding factors (e.g. brain processes) that are the causes of the dispositions.
This much, says Dennett, is true, and if Ryle supposed that causal and conceptual accounts of mental phenomena were incompatible, he was almost certainly wrong. But importantly, such a supposition is not necessary in order to capture what was right in Ryle's thinking, namely that no account in causal terms can capture the class of, for example, intelligent actions, except perhaps by accident.

It might be true that all intelligent behaviour has a causally similar explanation, but this is inessential to what we mean by intelligent actions, nor is it particularly likely that all intelligent actions will turn out to be instantiated in the exact same way. The difference, then, between Ryle and Dennett on this matter may be only that Dennett recognizes that questions about how mental phenomena are instantiated (i.e. what causes us to act in the way we do) are valid questions that deserve answers.

The central point that they agree upon is just this: a purely physical description of an intelligent action will not capture what it is about this event that makes us want to characterize it as intelligent. Any attempt to do so is doomed to failure, for it is attempting to supply a causal (sub-personal level) answer to a conceptual (personal level) question. An intelligent action is so described because this event can be described as an element of a larger pattern of behaviour. This feature of the event, described in these terms, supplies us with predictive utility.

So, I think that although Dennett and Ryle differ in the exposition of their views about the status of the mental, Ryle's view that mental talk belongs to a different logical category from talk about physical objects and Dennett's view that mental terms are abstracta are close in spirit. This cannot be said of Broad's conception of mentality. In Ryle's terms, Broad would most certainly be accused of making a category mistake. Broad's discussion of 'perception', 'volition' and other mental terms clearly indicates allegiance to the notion that these terms refer to events and not behavioural dispositions. For example, I discussed in chapter one a passage in MPN in which Broad addresses the issue of what role volitions play in the explanation of bodily movements. There we saw that Broad thought that physical events (such as biochemical events) could legitimately be conjoined with mental events in such a way that direct causal relations could hold between them and produce overt bodily behaviour. Rather than referring to this as a category
mistake, Dennett would say that Broad is illegitimately slipping intentional stance idioms (and the rationality assumptions that go along with them) into physical stance explanations, but the thrust of the argument is the same.

Of course, Broad does not see the problem in terms of categories and category mistakes at all. Rather, he sees himself as making ontological claims. This explains his need to show that mentality is not a 'delusive characteristic' (i.e. there is nothing in the world that is a mind, despite appearances). I would like this to indicate that Broad is a straightforward substantivalist about the mind, but unfortunately he explicitly rejects this view in the final chapter of MPN. There is but one substance for Broad—matter—but mentality is an irreducible, non-delusive, emergent characteristic (Broad 1925, 649).

But what, precisely, is a characteristic? This is a troublesome move, and not one that is confined to Broad. I think that Nagel's 'property dualism' and Searle's 'biological naturalism' (an alleged solution to the mind-body problem) have striking similarities. Consider this quote from Searle:

All mental states, from the profoundest philosophical thoughts to the most trivial itches and tickles are caused by neurobiological processes in the brain...Neuronal processes cause mental states and events. But what, then are these mental states and events? Does the causal relation between the two not commit us to some kind of dualism? No! Mental phenomena, such as my present state of conscious awareness of the table in front of me, are higher level features of the brain. (Searle 1994, 544)

On Searle's view, then, mental phenomena are caused by neurobiological facts (reminiscent of Broad's levels picture), and are different phenomena (characteristics?) without being different substances. I have grave doubts as to whether this view is coherent. Let's go back to what Broad has to say about the notion of a characteristic.

First and foremost, characteristics are properties of things ("aggregates", to use Broad's terminology) and are clearly not meant to be things in themselves. What kind of characteristic any particular characteristic is depends on an important distinction, namely whether the characteristic or property in question is reducible to phenomena at lower levels or is in principle unpredictable from even the most complete knowledge of those levels. As I discussed in chapter one, Broad believes that mentality must be an emergent characteristic because we know from
introspection (i.e. using pre-linguistic intuitions) that mentality cannot in principle be deduced from even the most complete knowledge of the structure of biological organisms.

Recall that I have already shown that a commitment to pre-linguistic intuitions is dependent on a fundamentally Cartesian picture of the mind, in which the mental is seen to be importantly distinct from the physical. But I cannot see how this distinction can be maintained if the mental is a mere property or characteristic of the physical. Broad, like Searle, insists that there is a causal relation between the biological and the psychological such that the mental properties that occur in us are a product of, but distinct from, biological events. They are distinct in that they are irreducible to biological phenomena. But surely to say that materialism is true is to say there can be no phenomena, such as mental properties or characteristics, that emerge as a result of the organization of physical systems of a certain complexity and yet cannot in principle be given a physical account. Such a view seems to make sense only if these properties are thought of as properties of a different kind of substance, a non-physical substance, but this is simply dualism.

I conclude that a non-substantival conception of the mind is inconsistent with the commitment to pre-linguistic intuitions which is implied by a fundamentally Cartesian picture. Beneath any talk of 'irreducibly mental properties', or 'emergent characteristics' there is the implicit notion that some thing is being introspected. A property or characteristic isn't a thing in this sense, and so can't do the job that Broad and others want it to do.

In the final section of this chapter, I'll take a closer look at emergentism. I'll argue that emergentism is a mysterious doctrine to which one might be tempted to adhere only for the reasons just discussed. I'll also distinguish between two types of emergentism, one of which is comparatively uncontroversial metaphysically. Dennett's views can be described as being emergentist in this sense, but this does not threaten my claim that both Dennett and Ryle fall on the non-emergentist side of this distinction.

5) Emergentism
Broad's conception of emergence is essentially that of Alexander. That is, the universe is so constituted that over time there is an increase in the amount of complexity. However, at certain critical points, novel properties appear or "emerge", creating a system of 'levels' (e.g. physical, chemical, biological, psychological). The important claim is that each new set of properties constituting a level is in principle unpredictable from the lower levels.

I have already discussed most of the problems associated with emergentism in chapter one. However, it has been said of Dennett's position that it is an emergentist one. This would present a problem for Dennett given that the aforementioned difficulties associated with emergentism seem insurmountable. I would like to suggest now that the notion of in principle unpredictability is what I believe separates Broad's metaphysical Emergentism from a type of (small 'e') emergentism that can legitimately be attributed to both Ryle and Dennett. This kind of emergentism involves no mysterious claims regarding in principle unpredictably and is therefore not threatening to our standard scientific world view.

I think that the best way to see this emergentist aspect is to look at Dennett's views on the matter and then see to what extent his views (which have a more explicit emergentist flavour) can be seen to be owing to Ryle's work. Dennett claims that we adopt the intentional stance towards certain physical systems of varying degrees of complexity because of the predictive utility that accompanies such an adoption. This adoption involves the use of a new vocabulary (that of belief and desire, etc.), and predictions may lack the accuracy of those at the physical level (i.e. there's plenty of 'noise' in these patterns—see below). However, what this approach lacks in consistent accuracy it makes up for in speed, an important advantage to organisms competing for survival.

But why does the intentional stance work at all? Dennett says it works because there are real physical patterns, patterns of observable behaviour, present in our environment. These patterns emerge out of the physical level without being detectable at that level because these

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2Note that any system that derives predictive utility from description using this new vocabulary (that of beliefs and desires) is by definition an intentional system. This has the additional non-Emergentist implication of a failure to generate a traditional 'levels' picture: The psychological need not be biological, since computers and even thermostats can be usefully predicted from the intentional stance.
patterns are regularities *between* physical events, and therefore there is nothing that can be said about any *particular* physical event in isolation. Because of the actual, objective existence of these patterns, we can say that they are *recognizabilia*, that is they are potentially recognizable by any particular observer (Dennett 1991b, 30-32).

So the success of folk-psychological prediction, of taking the intentional stance, is attributed to the fact that adopting this vocabulary permits us to exploit patterns that are really there, patterns that emerge out of the complex physical interactions. But this is not the kind of emergence that Broad is talking about, since it is assumed that any particular event, described as a psychological event, could be given a full and complete physical description at the physical level. Our intuition (*sense two*) that something is being left out when we so re-describe such an event is justified, in that there really is something being left out. But this element is not some property that appears magically and could not have been predicted from all knowledge at the physical level. Rather, what is left out is a description of this physical event's relationship to other physical events: a relationship that is pattern-like. Although at a higher level of abstraction than the physical level, the existence of patterns of physical events is not in any way mysterious.\(^3\)

It is these same patterns that Ryle was alluding to when he said that when we attribute mental terms to an individual we are really attributing a disposition to behave to that individual. The emergentist flavour that is present in Dennett is missing in Ryle in a large part because Ryle never addresses the question of precisely what a disposition is, and the causal story that should be told in order for us to understand why it is that certain dispositions can be attributed to individuals. Dennett, on the other hand, is perfectly willing to descend to the sub-personal level and address the issues about why we can successfully adopt intentional vocabulary.

The key insight, one that we can now see goes back to Ryle, is the idea of different levels of description of the same event. If we take too seriously the grammatical form of any particular vocabulary (for instance, by treating beliefs and volitions as if they existed in the same way that

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\(^3\)Well, we may ask "Why *these* patterns as opposed to some *other* conceivable patterns?", but this isn't metaphysically mysterious. The answers to such a question would presumably be found by a detailed examination of lower-level events.
whales and cars do) we end up mixing up levels of description illegitimately. Philosophers like Dennett and Donald Davidson have further developed this line of thinking since the time of Ryle.

I have defended my claim that Dennet and Ryle are not Emergentists in Broad's sense, since their views do not include the critical notion of in principle unpredictability. There is an interesting and important sense in which there is an emergentist element in their thinking, but far from being a troubling indication of a mysterious metaphysical view, this new emergentism proves to be a fruitful new way of looking at why we can attribute certain patently nonphysical traits to objects, without thereby threatening our materialist scientific world view.
CONCLUSION

I have argued that there is a new tradition in the philosophy of mind, a tradition that can be detected in a dramatic shift in emphasis in the philosophy of mind over the course of the twentieth century. The views of the three key philosophers under discussion in my thesis admirably demonstrate the changes that have taken place.

C.D. Broad's *The Mind and its Place in Nature* has proved to be an excellent foil for comparison of earlier, more traditional approaches to those of Gilbert Ryle and D.C. Dennett. I examined three crucial areas in Broad's book in the first chapter and in the course of my discussion I have revealed that he was committed to a view of the mind which is essentially Cartesian, including a commitment to the notion of pre-linguistic intuitions.

This view, which had been so prevalent in philosophy since the seventeenth century, was vigorously attacked by Gilbert Ryle in his watershed book, *The Concept of Mind*. He directed his critical skills towards a demolition of "Descartes' Myth," the name he gave to the principal category mistake implicit in the "official doctrine" about the nature and place of minds. His own positive theory, which has often been referred to in the literature as *logical behaviourism*, has recently been given a new interpretation which helps one to see more clearly the revolutionary nature of Ryle's work.

Ryle's anti-Cartesian conceptual analysis of mental conduct terms has deeply influenced the thinking of D.C. Dennett, arguably one of the most important contemporary thinkers in the philosophy of mind. Like *The Concept of Mind*, Dennett's *Consciousness Explained* is composed of both a critical attack on lingering forms of Cartesianism and positive thesis: a new model of consciousness that escapes these seductive Cartesian intuitions.

In the final chapter I argued for the emergence of the tradition for which Ryle and Dennett are to a large extent responsible by distinguishing four crucial themes in their work and expressing these themes in the form of four distinctions. I showed how these distinctions were inter-related in that the dominant theme of *Cartesianism* implied a commitment to the notion of *pre-linguistic intuitions*. The natural outcome of this pairing is a *substantival conception of the*
mind, although Broad's resistance to such a conception led to his adoption of emergentism. I showed that his adherence to this troublesome position was motivated by Broad's desire to countenance the possibility of pre-linguistic intuitions, but is unstable both in and of itself, as well as in the context of Broad's commitments to the other distinctions. Finally, I discussed why it is that there is an apparently emergentist element in the new tradition, but distinguished it from the kind of emergentism to which Broad adheres.
REFERENCES


