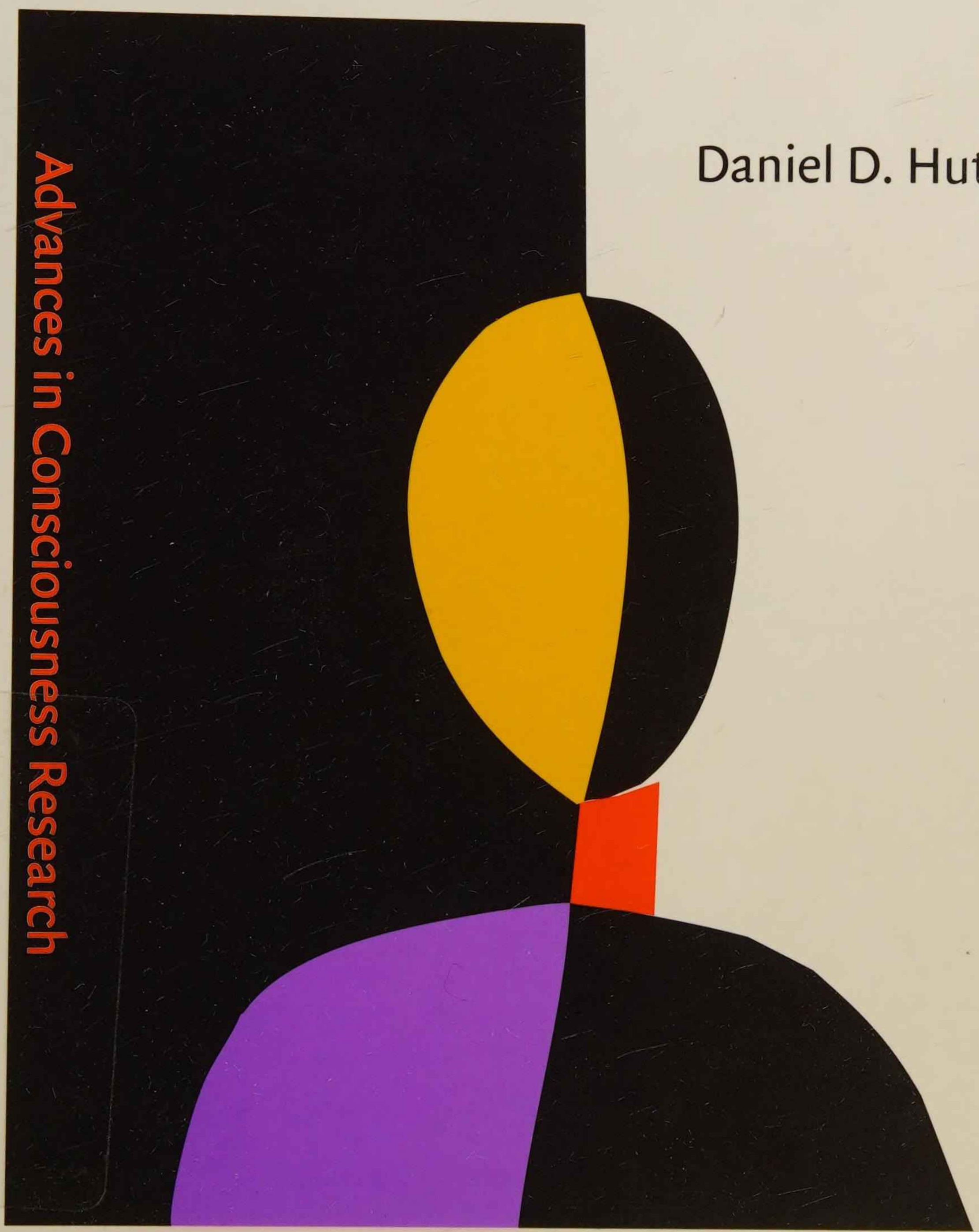
Beyond Physicalism

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Volume 21

Daniel D. Hutto

Beyond Physicalism

BEYOND PHYSICALISM

DANIEL D. HUTTO
University of Hertfordshire

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For my wife, Farah
audaces fortuna iuvat

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INTRODUCTION

"Psychology is conceptual confusion with empirical method"

- Wittgenstein, *Philosophical Investigations*, 232e

Time and time again, analytic philosophers of mind tell us that consciousness is at the same time the most ordinary phenomenon and yet the biggest stumbling block to a complete understanding of the world around us. In this regard the opening sentence of Chalmers' *The Conscious Mind* is typical in suggesting, "Conscious experience is at once the most familiar thing in the world and the most mysterious" (Chalmers 1996: 3, cf. also Davies and Humphreys 1995: 1). Yet, despite having features which ought to make it a prime target for philosophical analysis, consciousness has been systematically ignored in the analytic tradition until recently. This is commonly observed. Hence the remarks of Dennett and Searle have a familiar ring:

> Consciousness is regularly regarded, especially by people outside the field of philosophy, as the outstanding (and utterly baffling) challenge to materialist theories of mind. And yet, curiously enough, most of the major participants in the debates about mental content....have been conspicuously silent on the topic of consciousness. No theory, or even theory-sketch, of consciousness is to be found in the writings of Fodor, Putnam, Davidson, Stich, Harman, Dretske, or Burge, for instance (Dennett 1987a: x).

> ...one of the most amazing things about the past half century or so in analytic philosophy of mind is the scarcity of serious work on the nature of consciousness (Searle 1989: 193).

This lack of attention is now being redressed in an extraordinary fashion with books claiming insights into its nature flooding the market. The game to tame the mystery of consciousness by any means possible is now afoot. This has been attempted from a variety of angles, including by appeal to: the neurobiological (Crick 1994, Churchland 1989), the quantum mechanical (Penrose 1989, 1994a),

the functional (Dennett 1991a, Lycan 1988) and the representational (Dretske 1995, Tye 1996).

But sceptics of these proceedings claim that there is a hard, conceptual problem which bars the possibility of making consciousness intelligible in terms of anything else. Failure to take this problem seriously brings ruin to all of these theories of consciousness. In its most general formulation the hard problem is a problem about intelligibility. Yet, Chalmers, who coined the term, has sometimes presented it as a problem about explanation. In this form it asks the puzzling question: Why should there be conscious experience at all? (Chalmers 1996: 4). I do not think this question is all that difficult. Or rather, to be precise, when it is asked in this general way it is just as difficult but just as inoffensive as the question: Why is there anything rather than nothing at all? I don't think we should try to answer either this question or Chalmers' question. However, when the latter is formulated in a more specific way it can be answered, as I hope to show in chapter three.

Yet there are other hard problems of consciousness. Indeed the hard problem can be broken down into at least two separate conceptual problems. Each of these concern the issue of intelligibility in different ways and consequently impact on issues concerning explanation. The first concerns the issue of how to characterise the nature of consciousness itself – I call this the phenomenology problem. The other concerns the issue of how to understand its relation to the physical – I call this the metaphysical problem.

1. The Phenomenology Problem

John Searle has recently dismissed the idea that there is any phenomenological problem. He writes:

> There is a problem that is supposed to be difficult but does not seem very serious to me, and that is the problem of defining 'consciousness'. It is supposed to be frightfully difficult to define the term. But if we distinguish between analytic definitions, which aim to analyze the essence of a phenomenon, and commonsense definitions, which just identify what we are talking about, it does not seem to me at all difficult to give a commonsense definition of the term: 'consciousness' refers to those states of sentience and awareness that typically begin when we awake from a dreamless sleep and continue until we go to sleep again, or fall into a coma or die or otherwise become 'unconscious'....Consciousness so defined is an inner, first-person, qualitative phenomenon (Searle 1997: 5).

Searle takes this definition to be obvious commonsense and within the space of a page attributes it to Descartes as the basis for his, "...dualism of conscious mind and unconscious matter" (Searle 1997: 6). But things are not as black and white as this. Descartes was not concerned with consciousness as Searle defines it. For example, he would not have recognised its qualitative character as being the motivating factor behind his dualism. His focus was on the irreducibility of the intellect, not on the character of experience. This is revealed when he tells us that his purpose was:

> ...to give such a full account of the entire bodily machine that we will have no more reason to think that it is the soul which produces in it the movements which we know by experience are not controlled by our will than we have reason to think that there is a soul in a clock which makes it tell the time (Descartes *Description of the Human Body*: AT XI §225–226).

The important qualification in this remark concerns 'the movements which we know by experience are not controlled by our will'. It is made precisely because, for Descartes, volition essentially involves the intellect and he had several reasons to doubt that our intellect could be reduced to the mechanical (see Descartes *Discourse on Method*: part five, §55–57, cf. also Cottingham 1992). And, although he does periodically speak of feelings, sensations and awareness, he distinguishes these as being bodily to the extent that they are not connected with thought. For example, in his *Fifth Set of Replies* he makes this point explicitly with respect to sensations. He writes:

> ...as for movement and sensation, I refer them to the body for the most part, and attribute nothing belonging to them to the soul, apart from the element of thought alone (Descartes *Fifth Set of Replies*: §351)

Only in so far as a sensation or feeling had an intellectual aspect did he regard it as essentially mental. It is with this in mind that commentators suggest that, for Descartes, "...the term 'thought' served as the most general expression for the common property of all mental acts" (Kahn 1979: 23, cf. also Nelkin 1996: 7). Malcolm translates this claim into contemporary lingo when he suggests, "If every human sensation includes thought, and if thought is propositional content together with propositional attitude, then at the very centre of every sensation of ours there is a proposition" (Malcolm 1977: 45, cf. Kenny 1973). Put otherwise, awareness *of* is really awareness *that*; i.e. awareness of a propositional kind. As a result Descartes saw nothing controversial in the idea of animal experimentation, since it followed that if animals lack intellect they have no mentality whatsoever. For example, they were incapable of feeling pain. Creatures without a capacity for

intellectual thought were regarded as mere machines. This view also inspired an inappropriately mechanistic understanding of biology.

Although all this may seem outrageous today, it makes perfect sense precisely because Descartes did not recognise or define the phenomena of consciousness in the way which Searle suggests is nothing but plain commonsense. It is to this extent both misleading and anachronistic to regard him as proposing that the mind-body problem is really a problem about consciousness. His formulation of the mind-body problem is not ours. The best one could say is that today's problem of consciousness is framed in a similar way.

In what appears, *prima facie*, to be the basis for a similar charge, Hamlyn notes that in Aristotle's writings, "...there is almost a total neglect of any problem arising from psychophysical dualism and the facts of consciousness" (Hamlyn 1968: xiii, cf. also Wilkes 1995: 122, Nussbaum and Putnam 1995: 30–31). I want to consider both of these claims in turn and compare them to Descartes' position. This will nicely highlight the pertinent issues. I shall take the second one first. For while it is true that Aristotle does not speak of the qualitative character of experience in the manner which has grown familiar since the heyday of empiricism, there are two features of his approach worthy of note.

Firstly, Aristotle distinguished intellectual capacity (*nous*) from our capacity for sentient response. Indeed this has led one Aristotelian scholar to wonder:

> If *nous* is so radically different, how is it connected to the other parts of the soul which *are* the actualizations of bodily structures? We are sentient animals in virtue of our hylomorphic soul. Are we rational animals in virtue of two distinct souls, the one that makes us animals and 'a different kind' that makes us rational? Is human nature constituted by one essence or two? (Kahn 1992: 361).

Although talk of essences is not my preferred language, the position I advocate in this book is akin to Aristotle's to the extent that I think it is crucial to distinguish sentience from intellect. Indeed most of *De Anima* is devoted to understanding the non-cognitive character of the various sense modalities (Putnam 1994: 3–7). His work is valuable not least because it serves as corrective to the empiricist idea that experience must be passive if it is non-cognitive (cf. Nelkin 1996: 1). I characterise this divide by marking a difference between the conceptual and the nonconceptual. Within the domain of the latter I draw a further distinction between the experiential and the intentional.

The point of this brief comparison is to stress that, philosophically speaking, issues about how we ought to understand consciousness are not as open and shut as Searle makes out. It is not obvious how to define consciousness or its features. For we might ask: Is it structured? Is it passive or active? Is it conceptual or

nonconceptual? Does it have irreducibly qualitative aspects or not? I explore these questions in the first two chapters. However, as it happens, I agree with Searle in thinking that denying or ignoring the qualitative aspects of experience is phenomenologically unacceptable. In this regard I believe Cartesian intellectualism about experience, which makes one suspicious of qualia, is the most common impediment to progress with respect to the phenomenological problem.

Once we recognise that experiences exist and that they are, at bottom, nonconceptual, we have means to deal with puzzles about the ineffable character of subjectivity. In particular, by viewing matters in this light, we can see why it is folly to attempt to produce a theory of consciousness and reduce experience to something that it is not. This is useful for although the phenomenology problem has remained largely unaddressed by the Anglo-American tradition, when it has been seriously confronted the end result has been quite unsatisfactory. My way of dealing with consciousness is precisely *not* by attempting to reduce it or by asking us to re-configure our understanding of its character under the auspices of some new theory. Rather my hope is that once we recognise its essentially nonconceptual character and the way in which we understand the consciousness of others, we will be cured of this tendency.

In all, the quest for an adequate theory of consciousness can be fruitfully compared with the Arthurian quest for the Holy Grail. According to one version of the legend, Arthur's knights were given the quest to scour the length and breadth of the land in order to locate the cup of Christ so as to restore their ailing king. However their quest concluded only when Arthur realised that the Grail is not, in fact, a precious worldly item but a metaphor for self-realisation. His sickness was brought on because he had forgotten his status and responsibility as king. Similarly I maintain, the quest for a theory of consciousness will not end with the location or discovery of the right theory. It will cease only when we forego this quest and denounce such attempts, for only then will we be in a position to understand the nature of consciousness and its essential, but partial, role in enabling us to form conceptual perspectives.

2. The Metaphysical Problem

It will be rightly objected that the real source of our felt need to produce a theory of consciousness is not that we confusingly think that we can capture or reproduce its character by some conceptual means – rather, it is that we need such a theory in order to understand how consciousness fits in the world order. This takes us straight to the heart of the mind-body problem, the hard problem, or as I call it, the metaphysical problem. And here it is interesting to note that although we can find the image of our experiential version of this problem in Descartes, Hamlyn is right

to think that Aristotle did not recognise it at all. How can this be so? Answering this question helps us to understand the real source of the problem. Burnyeat puts his finger on it when he writes:

> Aristotle's philosophy of mind is no longer credible because Aristotelian physics is no longer credible, and the fact of that physics being incredible has quite a lot to do with there being such a thing as the mind-body problem as we face it today (Burnyeat 1995a: 16, Burnyeat 1995b).

The suppressed premise in Burnyeat's remark, covered by the phrase 'quite a lot to do', is of course that it is not just our physics, but our metaphysics which has taken a new direction in the post-Cartesian era. Hence the reason why Aristotle's physics did not give succour to the mind-body problem is precisely because it was embedded in a larger, teleological world-view that saw the form/matter distinction running throughout all nature (cf. Wilkes 1995: 117). In contrast, apart from making special room for human intellect, Descartes took his metaphysical guidance about the nature of reality from the developing physics alone. He holds a prominent place amongst the founders of classical physics because he was inclined to treat all matter as definable in terms of mathematical laws and as having no essential nature other than that of quantity. Matter, for him, was not different in different things. It was not relative to form. Hence it was not different in air, earth, fire or water. It was mere extension (size, shape, etc.); it had no other essence or qualities. In a claim that was shocking for his time, he wrote:

> We have thus seen that the nature of corporeal substance consists in its being something extended (*res extensa*) (Descartes *The Principles of Material Things*: §XIX).

The Cartesian universe is thus divided into intellectual substances, on the one hand, and mere matter in extension, on the other. This is what Ryle refers to as the 'Two worlds myth' and the 'Official doctrine' (cf. Ryle 1949: ch. 1). This is, of course, all overly familiar, but it is important to note the source of the split world view. For, on their own, Descartes' pioneering ideas about the physical are not sufficient to generate the mind-body problem. It stems from the fact that the formulation of a new physics played an overriding part in his project of trying to find a single, unitary system for describing all that happens in the world – one which had all the certainty of mathematics (cf. Cottingham 1992: 5). The mind-body problem as we have inherited it must be understood in light of this grand *metaphysical* ambition. For Descartes did more than advance our scientific understanding by incorporating his views on mechanics into a philosophical

world-view; he challenged and undermined the more hospitable and tolerant scholastic Aristotelianism that previously dominated.

In many respects, today's materialism or physicalism is the direct descendant of Descartes' metaphysical system, *sans* the commitment to mental substances. Today's twist is, if there are any mental phenomena, then they must be physical in nature. So, whereas Descartes made room for humanity, the descendants of the Enlightenment threaten to squeeze us out completely. In so far as it does not do this, physicalism must at least face up to the metaphysical problem of consciousness. As formulated today, this is essentially a problem about *understanding* the relation between the experiential and the physical. Fodor nicely captures the character of the difficulty and the spirit of hopelessness that generally pervades much of the intellectual community with respect to it.

> Nobody has the slightest idea how anything material could be conscious. Nobody even knows what it would be like to have the slightest idea about how anything material could be conscious. So much for the philosophy of consciousness (Fodor 1992: 5, cf. also Nagel 1994: 65, Gouen and Forman 1994: 5).

But not everyone is as forlorn as Fodor. Witness, for example, Flanagan's proposed 'natural method' for tackling this issue. On this approach we are advised to, "...use information from the psychological or phenomenological levels to generate neural hypotheses" (Flanagan 1991: 53). However, sceptics argue that while it may be possible to chart the various relations or correlations between conscious experiences and neurophysiological events which underpin them, there has been no headway (some say there can never be) with respect to making transparent the general relation that holds between these two domains. Or, for those who think the relation is one of identity, the problem can be expressed as a puzzle about how to understand the relation between our ways of speaking about the two domains.

But many who admit that there is such a hard, metaphysical problem comfort themselves by suggesting that consciousness is unique in its resistance to incorporation into the physical world. They claim that, on the whole, physicalism is fine as a general metaphysical framework and that experiences are alone in being cantankerous and resistant to the understanding. For example, Nagel tells us that conscious awareness is the source of the *real* mind-body problem (cf. Nagel 1979, 1986). And, in a similar vein, Galen Strawson remarks:

> The question about experience is the difficult question. I think it is really all there is to the mind-body problem: nothing else that we are inclined to think

> of as mental raises any deep philosophical difficulty, so far as the general mind-body problem is concerned (Strawson 1994: 44).

Thus analytic philosophers generally feel confident about the prospect of naturalising representational content. As McGinn notes, "Books and articles appear apace offering to tell us exactly what mental aboutness consists in, while heads continue to be shaken over the nature of consciousness" (McGinn 1991: 24). Chalmers echoes this kind of optimism, by saying:

> The psychological [e.g. functional, representational] aspects of mind pose many technical problems for cognitive science, and a number of interesting puzzles for philosophical analysis, but they pose no deep metaphysical enigmas (Chalmers 1996: 24).

In my view this appraisal is mistaken. Firstly, as Hodgson and Lowe have argued, many of the activities that Chalmers regards as merely functional, such as discrimination, recognition and language use, are bound up with experience in crucial ways, at least in the case of adult humans. Consider, as I argued in *The Presence of Mind*, that only creatures who are able to contrast and compare perspectives meet the minimal requirement for conceptual thought and speech. In that book I argued that basic forms of nonconceptual intentionality, exhibited by even very simple organisms are best understood by appeal to a modest biosemantics, not by means of causal or informational theories of content. Nevertheless, I claimed that nonconceptual intentionality plays a vital but partial role in making conceptual development possible. What I did not claim, although I also think it is true, is that nonconceptual experience also plays an essential role in such development. But although such experience is also nonconceptual, it is distinct from the intentionality of such responses. This is because experience is essentially subjective in character in a way that intentionality is not. I make my arguments for these conclusions in chapters one and two. However, the point I want to emphasise here is that, given transitivity, there are no easy problems even when it comes to understanding conceptual forms of consciousness (Lowe 1995: 266, Hodgson 1996: 69).

Connectedly, even if we ignore the typical adult human case, the claim that physicalism is doing well is only evidentially supported by developments in artificial intelligence and cognitive science, if we ignore the very deep problem of naturalising intentionality or representational content. Naturally if we put this issue aside, then it is no surprise that physicalism is smoothly compatible with causal and informational accounts of the workings of internal mechanisms, no matter how complex they are. But explaining how creatures manage to co-ordinate their behaviour in this respect is a far cry from explaining why they act, in a sense that

specifies what they are supposed to be doing. The latter question introduces a normative dimension which is elusive from a causal or merely informational point of view. Explanations concerning the mechanisms which underpin action answer to a different set of concerns than those of importance when explaining the directedness of action. It is on these grounds that I advocated scepticism about causal and informational theories of representational content in *The Presence of Mind*. But if that analysis is correct, it casts doubt on the grander ambitions of cognitive science with respect to understanding the nature of the mind. In this light I find it is doubly ironic that some theorists hope to explain consciousness by appeal to a naturalised theory of representation.

Although clearly different in a crucial respect, the twin problems of consciousness are connected to the problem of content in precisely the way that Chalmers thinks they are not. Content and consciousness are deep metaphysical problems and ought to be regarded as such by physicalists. But, as consideration of Descartes' position reveals, they are only problems for physicalists. From a distance, its advocates appear not unlike plumbers trying desperately to fix the broken taps of a sink. They fiddle and fiddle with their eyes focused on the taps; one marked 'content' and the other marked 'consciousness'. But it escapes their notice that the real trouble lies in the pipes themselves, with the underlying metaphysics. In this light the predominant, seemingly unshakeable faith, in the truth of physicalism is curious. By my reckoning physicalists have done nothing to advance our understanding of either representational content or consciousness. In a word, it is a doctrine that is absent of mind. In this respect at least Descartes' dualism is to be preferred in that it makes room for the mental.

If this charge can be made to stick, it is doubly damning since at the very least, whatever else they have or have not achieved, physicalists regard themselves as having produced a metaphysical account which is clearly superior to Cartesian dualism. Hence making this charge stick is a tall task. It involves not just a critique but also an exposition. For although we are frequently told that physicalism is the word of the day, there isn't a consensus on the meaning of the word. One of my tasks in chapter four is to identify, as far and as charitably possible, a minimal yet non-vacuous definition of physicalism. In doing so I look to its roots in classical physics for inspiration. Only against this background is it clear why certain kinds of phenomena, such as experience, must be outlawed. This analysis also reveals why explanatory accounts, which employ softer notions such as emergence, are forlorn when it comes to explaining experience. Any explanatorily ambitious version of physicalism, strong or mild, will lack the resources to make experience intelligible in its physical terms. Physicalism, in any of its standard reductive or non-reductive forms, is doomed to failure. Only in its most minimal ontological guise, which abandons the attempt to solve the metaphysical problem, is the doctrine at all plausible.

3. The Need to Go Beyond

Having come this far, I go on to argue in chapter five that a minimal ontological physicalism does little better than dualism and compares unfavourably with the metaphysics of absolute idealism. Specifically, I claim that Bradley's version of absolute idealism provides a more satisfactory means of understanding our place within nature. It better characterises our situation with respect to the real and in doing so resolves the very tensions which give rise to the metaphysical problem. In defending absolute idealism, my strategy is unlike that of many other writers in this field. Indeed it is best seen as a complete reversal of the standard approach. I do not advance a theory of consciousness which attempts to show how it fits within the current physicalist framework. Rather I question the validity of that framework itself in the hopes of making room for consciousness in the natural world, thereby doing justice to both consciousness and science. My claim is that the metaphysical problem is not a problem to be solved, but one to be avoided. Moreover it is no accident that it can only be formulated against the background of materialism or physicalism. In this regard Shear is right to say of the most prominent absolute idealist, that:

> ...Hegel developed an idealistic theory of the universe evolving dialectically out of 'Spirit' or consciousness itself....[From this perspective] the 'hard problem' if articulable at all, would not be the central philosophical anomaly it is today (Shear 1995: 197).

But he also adds, "...these views have all been dropped by the wayside in our modern scientific world and the materialist view has come to be so dominant that it is generally regarded as simple common sense" (Shear 1995: 197, cf. also McDonough 1991). Moreover the idea that, "...the universe [is] material in nature and unfold[s] like a machine according to precise, mathematically articulable laws gained ascendancy and became the context of our Western intellectual discourse" (Shear 1995: 195). Whether or not this view can now be said to be commonsensical, it is the general unquestioned philosophical backdrop of physicalism that frames discussions and debates concerning the naturalness or otherwise of various phenomena, as Burnyeat's quotation makes clear. This is the real source of the metaphysical problem. Endorsing absolute idealism enables us to avoid it.

Nevertheless there are reasons why absolute idealism is less than credible in modern eyes. In chapter six I attempt to defuse two reasons for thinking it is a non-starter. Firstly, I argue that, contrary to the opinion of some, it was not refuted earlier this century. Secondly, and more importantly, although it is at odds with the metaphysics inspired or guided by natural science, it is not at odds with

our best understanding of the natural sciences themselves. I make this case by comparing its virtues in the domain of the philosophy of science with two versions of naturalised metaphysics, one which advocates unity and one which advocates rampant pluralism. I argue that at the level of theorising, we ought to favour the autonomy of the sciences on the grounds that the intelligibility problem is not unique to the psychological domain. It is not just content and consciousness that are ill-behaved in a way that precludes reduction and bars the development of single unified science or ideal physics. I examine cases from other quarters such as the biological sciences and quantum mechanics. Since I believe that neither these nor the psychological phenomena mentioned can be coherently ignored, this provides strong evidence against the idea that an unified metaphysics can be had if we follow the lead of the natural sciences. Yet I propose that the metaphysical unity which is presupposed by absolute idealism is more appealing than the kind of contradictory pluralism proposed by some like Dupré (cf. Dupré 1993).

Finally, I further argue in chapter seven that absolute idealism has the right epistemological and metaphysical resources to provide a sound understanding of the nature of truth and the continuity of transtheoretical reference. Hence it enables us to understand the character of scientific progress better than traditional accounts from within the analytic tradition. This is because a Bradleyian conception of truth fits both with the softer notions of correspondence standardly defended by today's philosophers of science and enables us to accommodate the anti-linguistic turn of those philosophers who, like Hacking, want us to give more attention to nonconceptual intervening as opposed to representing.

As a final note to the reader, it will be observed that during the course of this book the same themes keep re-emerging in various different ways and places. Initially I regarded this as a fault and I had thought to streamline the material and corral the discussions so they followed one another in neat logical succession. However, in the end I have decided not to do this because I believe there is a valuable effect of amplification to be had. It is good to recognise how one is invariably drawn back to the same issues and prone to the same kinds of mistakes, time and again, when thinking about consciousness. Nonetheless in order to avoid monotony, where such connections exist I have relied on internal cross-referencing rather than repeating earlier arguments in full glory.

CHAPTER ONE

Nonconceptual Experience

"I do not believe in any knowledge which is independent of feeling and sensation. On sensation and feeling I am sure that we depend for the material of our knowledge"

– F.H. Bradley, *On Truth and Coherence,* 203

1. Introduction

This book concerns how we are to understand basic experiences and what form of metaphysics can appropriately accommodate them. It is worth noting at the start that I will not be concerned with higher-order forms of consciousness or self-consciousness, except incidentally. I believe that these forms of consciousness require awareness of awareness, which rests on a conceptual capacity for recognising the perspectives of others. It is my claim that this capacity presupposes more basic capacities to respond to a common world and to recognise that others have similar responses. I also believe that the similarity of these basic responses rests, in part, on their having the same experiential character. Hence it is basic experiences and their characteristics with which I am primarily concerned (cf. Dretske 1995: 1, Tye 1996: xiii, Chalmers 1996: 4). Bearing this in mind, the purpose of this chapter is twofold. Firstly, it aims to provide some preliminary reasons for thinking that experience is nonconceptual in nature. Secondly, it aims to argue for this view on the grounds that nonconceptual experience is a necessary platform for conceptual development.

2. A Preliminary Case for Nonconceptual Experience

Conceptual theorists overly intellectualise the nature of experience when they subscribe to what Peacocke has dubbed, the adequacy thesis. It states:

> ...a complete intrinsic characterisation of an experience can be given by embedding within an operator like 'it visually appears to the subject that...' some complex condition concerning objects (Peacocke 1983: 8, 19).

What follows the that-clause will be a specifiable content which is composed of the relevant concepts. There are two versions of this thesis. The first claims that the concepts which specify the content of an experience are those which the subject explicitly deploys. The second version does not require the subject to get in on the act at all. Thus the content of experience would be specified by the mere occurrence of a token proposition in the language of thought. What unites both versions is that they equate experiential content with some kind of conceptually composed representational content, classically construed. What separates them is that the first account locates this content at the personal level whereas the second does so at the sub-personal level. On the first version, it is necessary that the subject explicitly and conceptually identifies or otherwise interprets their experiences if they are to count as having any. On the second version, all that is necessary for experience is that there be a sub-personal representation, with the appropriate content occurring in the subject.

Proponents of the idea that experience is nonconceptual minimally believe that such a canonical specification is neither possible nor necessary. They claim it is possible for subjects to have experiences even if they lack the concepts needed to canonically specify the content of the experience and lack the potential ever to gain them. The strongest version of this claim doesn't require the subject of experience to have any concepts at all. It is the strongest version which I endorse and seek to defend. However, as stated, this formulation fails to distinguish sensational from representational versions of the thesis. It is vital to mark this difference. For example, in advocating the representational version, Bermúdez claims that:

> What distinguishes the theory of nonconceptual content from theories of the sensational component of perceptual experience is that nonconceptual content is representational (Bermúdez 1998: 50, cf. also 51).

The idea is that it is possible to think of experiential content as sub-personally representational whilst denying that all forms of representation should be understood along the lines of the classical, conceptually-based, model. Nevertheless those who support such a view standardly cling to the idea that experiential content has correctness conditions of some kind such that it veridically presents the world as being a certain way.

In contrast I defend the sensationalist version of the nonconceptual thesis even though I fear certain connotations of the label. On this view, whatever else they are, experiences are essentially non-representational. Peacocke formulated the

proposal in a way that relates directly to issues concerning consciousness. In 1983, he wrote:

> ...sensational properties will be properties an experience has in virtue of some aspect – other than its representational content – of what it is like to have that experience (Peacocke 1983: 5).

But before I enter into this private war between nonconceptualists, my first task in this chapter is to defend the nonconceptual approach in general. To that end, in the next section, I sketch some reasons for thinking that basic experience is nonconceptual rather than conceptual. My remarks are directed against the conceptualist who believes that experiences require explicit categorisation on the part of the subject. I do not address the version of conceptualism that rests on the idea that representation is sub-personal because I offer a general critique of all attempts to understand experience by appeal to the notion of sub-personal representation, conceptual or otherwise. I make my case for this claim in the next chapter.

2.1. The Ancient Pedigree of Nonconceptualism

The distinction between the conceptual and the nonconceptual is ancient and has a respectable pedigree. For example, in Aristotle's account of sense perception, he gives early expression to this divide. As Kahn puts it, he believed that we have a, "...sense faculty [which] we share with animals and [an] intellectual apprehension [which] we share with God or gods" (Kahn 1979: 30). Thus in outlining the three possible kinds of objects of perception, he writes:

> The term 'object of sense' covers three kinds of objects, two kinds of which we call perceptible in themselves, while the remaining one is only incidentally perceptible. Of the first two kinds one consists of what is special to a single sense, the other to what is common to all of the senses. I call by the name of special object of this or that sense that which cannot be perceived by any other sense than that one and in respect of which no error is possible; in this sense colour is the special object of sight, sound of hearing, flavour of taste....Each sense has one kind of object which it discerns, and never errs in reporting that what is before it is a colour or sound (though it may err as to what it is that is coloured or where that is, or what it is that is sounding or where that is). Such objects are what we call the special objects of sense.
>
> Common sensibles are movement, rest, number, figure, magnitude; these are not special to any one sense, but are common to all....
>
> We speak of an incidental object of sense where, e.g. the white object which we see is the son of Diares; here because being the son of Diares is incidental

> to the white which is perceived, we speak of Diares being incidentally perceived. That is why it in no way affects the senses (*De Anima*, Bk II, 418[a] 7–23).

Imagine, for the sake of illustration, that a frog was a subject of experience and that these distinctions apply to its perception of a fly. On this schema it would see the fly by means of detecting darkly coloured objects (colour being the special object of the sense of sight) and by means of detecting size and movement (common sensibles). But the fact that the frog perceives a fly rather than a bee-bee is merely incidental. Neither a fly nor a bee-bee is, to use Aristotle's language, properly perceptible by sight – though they can be incidental objects of perception. In contrast, noticing a fly, in the sense of recognising something *as a fly*, involves a judgement which requires concepts. It is judgements that can be either true or false. Thus conceiving, as opposed to mere perceiving, comes into its own when and only when it is possible to err with respect to truth or falsity.[1]

In modern dress, the idea is that, like other animals, we can be conscious of colours, pains (in certain bodily locales), sounds, faces, people, and the like without necessarily being conscious of these items in an intellectual or conceptual fashion. This runs against Descartes' identification of human minds with their thinking essences as characterised by intellectual capacity alone. And although today's naturalists reject his dualism, Cartesian intellectualism, as described more fully in the introduction, remains a major source of inspiration for conceptualism about experience. Before I argue against this view, I want to consider some general reasons for preferring nonconceptualism.

2.2. Some Reasons to Think Experience is Nonconceptual

An intuitive way to highlight the divide between the conceptual and the nonconceptual would be to ask you to take stock of noises, colours and the feel of things and events around you at this very moment. I hope that while you are reading this chapter you are not also paying detailed attention to each of them. Nevertheless it seems wrong to suppose that you are unaware of them on these grounds. This alone might encourage one to think that our capacity to sense and monitor things appears to operate independently from our capacity to form thoughts.[2] Consider the fact that a conceptual content, such as "There is an aeroplane overhead", might be prompted by auditory or visual experiences of the appropriate kind and these would have very different qualitative characters.[3] My point is just that it is plausible to think that one might have these experiences even if one did not stop to think what might be causing them.

We have further *prima facie* evidence that experience is nonconceptual in the form of the fact that we often respond in sophisticated ways without giving any thought to our actions. For example, imagine a situation in which someone

unexpectedly throws an object at you. Imagine also that this happens so quickly that, at least at the time, you are unable to say what the object might be. This lack of conceptualisation would not prevent you from instinctively batting it away. What apparently explains this response is the fact that we can see things independently of whether or not we can categorise them (see Burge 1977: 349–350, Searle 1992: 138).

There is also the often-cited case of experienced drivers who manage to successfully respond to the road, without giving any detailed attention to the performance of their task. Such cases serve to remind us that a great many, perhaps even the majority, of our actions are normally performed without any explicit propositional thoughts in attendance (cf. Tye 1996: 115, Dretske 1995: 104–105).[4] This suggests that experience plays its primary role in the production or influencing of action rather than being intrinsically tied to judging or believing (cf. Weiskrantz 1997: 29–30).

Yet defenders of higher-order or reflexive conceptual theories of consciousness will be quick to point out that in all the cited examples I relativised the subjects' lack of conceptual awareness to particular times. And this is important for it can be objected that although a subject might not explicitly conceptualise the experience at a given time, this is not sufficient reason to think that experiences exist prior to such conceptualisation. All that is required is that the subject has the potential to form explicit thoughts about how things appear, for this is what is minimally required for having an experience (cf. Rosenthal 1993: 204, Carruthers 1996: 174, 198). Hence Dennett stresses that:

> While it is true that one can focus on a spot on the wall and yet direct one's attention to the periphery of one's visual field and come up with reports like 'There is something blue and book-sized on the table to my right; it is vague and blurred and I am not sure it is a book', it cannot be inferred from this that when one is not doing this one is still aware of the blue, book-like shape (Dennett 1969: 140).

Dennett is right that we cannot simply rely on our intuitions or introspections to support such a claim. Consequently, despite their intuitive appeal, as things stand all of the cases cited above are entirely compatible with maintaining that only those capable of explicit conceptualisation are capable of such experience. Higher-order theorists claim that in such cases the important thing is that the right contentful thought is potentially *available* to the subject. With respect to the driver's case, Carruthers writes:

> …the absent-minded driver is disposed to acquire such a belief if prompted. And someone who is blindsighted, but who also knows the details of their

> condition, may also be disposed to have beliefs about their (non-conscious) perceptions, in many cases – without, of course, those perceptions becoming conscious ones (Carruthers 1996: 171).

Weiskrantz objects to lumping these cases together on the grounds that there is a key difference in the degree of responsiveness displayed by blindsighted patients and ordinary subjects, like the driver. Furthermore, he challenges theorists who equate being conscious *per se* with having higher-order thoughts on the grounds that such accounts would:

> ...render us unconscious a good bit of the time – how often do we have thoughts about thoughts! In a very real sense we *are* often unconscious in these terms. But it does not mean our automatic piloting of a car along the motorway while thinking of tomorrow's committee meeting should be put in the same visual category as blindsight (Weiskrantz 1997: 73).

I agree with the sentiment. Nevertheless Weiskrantz's motive for defending this line is not mine. That is to say, he does not recognise that the crucial difference between the blindsighted and the normal subject hinges on the fact that the former lacks a capacity for qualitative experience but the latter does not. He is only concerned to emphasise the differences in the flexibility and plasticity of the responses of these two classes of subject. Consequently, although he distinguishes the driver's form of awareness from that of the blindsight patient, he immediately qualifies this by suggesting that in other respects they are equivalent. But why should we adopt the stronger line? The reason is tied up with the question: What explains the difference in the flexibility of attentional focus in the two cases? Rockwell puts his finger on the right kind of answer. With reference to the blind spot case, he writes:

> ...how things are brought to the foreground of experience presupposes that there must be a background of experience as well....Those items in the background of experiences could be singled out more or less at any moment by an act of intentional tracking or probing, which would make them objects of awareness. They have this kind of immediate accessibility *because of past training and experiences* (Rockwell 1996: 473, emphasis mine).

This reply generalises. For example, in the case of the driver it is in part because he has had past experiences and that he has learned to categorise them that he can now voluntarily focus on them. He is aware of the familiar background in a way that enables him to redirect his attention at certain aspects of his world at will. The point is that having experience is a prerequisite for such attentional tasks. You

can't attend to something which you can't see. In this sense while the fact that such flexibility is volitional is important, it remains incidental to the question of experiential awareness. This is why it is crucial to distinguish between normal and blindsighted patients by recognising that the former group, but not the latter, has qualitative experiences.

There are other ways of demonstrating the need to distinguish between the focus of attention and what lies in the background of experience. For example, the blind spot experiment is designed to enable us to notice our visual blind spot of which we are normally unaware (cf. Rockwell 1996: 467, Ramachandran and Hirsten 1997: 434-436, cf. also Dennett 1991a: 324). In order to notice the blind spot focus on the central cross in Figure 1, close one eye and draw the page closer to your face. As this happens the peripheral dots should vanish. Under these special circumstances the blind spot is revealed. The question is: Why don't we notice it during ordinary perception? The standard answer is that it is filled-in and forms part of the background for attentional tasks of perception. But in order for this to be the case the subject must have background experiences that are not the centre of attention.[5] Hence I agree with Searle's suggestion that, "...we need to distinguish the conscious/unconscious distinction from the center of attention/periphery distinction" (Searle 1992: 138). But, in doing so, we must also add a conceptual-nonconceptual axis into the mix.

In the remainder of this section I offer a few more compelling speculations about why nonconceptualism about experience is at least speculatively plausible, before arguing in section three the need to postulate its existence.



Figure 1. *A version of the blind spot experiment*

2.2.1. Perceptual Illusions and Noticing Aspects

Nonconceptual experience provides a natural way to understand certain perceptual illusions. For example, it helps us to explain why the Müller-Lyer illusion continues to have an effect on us, even after we are aware of its nature (see Figure 2).[6] Notoriously, one line still looks longer even after the trick is revealed and we know them to be the same length. We can easily account for this by saying that we see one thing but believe another, and that these are different capacities (cf. also Crane 1992: 150-151, Tye 1996: 102). The point is that a judgement with the propositional content that, 'The lines are the same length', must be characterised in terms of concepts which the subject possesses (or as some would say: the proposition is composed of them). In contrast, a purely experiential response is distinguished by the fact that those same concepts are inappropriate in a principled description of its content. The judgement that, 'The one line looks longer', rests on the subject having a certain kind of persistent visual experience. The point is that once we drop to this level, the reason the illusion will not dissipate is because here we are only concerned with how things look.

I discussed this illusion in *The Presence of Mind* in order to illustrate the distinction between nonconceptual and conceptual responding as it concerns intentionality (see Hutto 1999c: ch. 4). My purpose there was to establish that a nonconceptual response could be both world-directed as well as potentially action-guiding. But with respect to the question of intentionality there is no need to mention a 'how things are presented to a subject'. In precisely the opposite way, when we turn to experience, the question of the subject becomes central. Hence, although I regard both experience and intentionality as nonconceptual, they must be distinguished. I say why in greater detail in chapter two, section three.

Another reason to think experience is nonconceptual has to do with our ability to see multiple aspects as is the case when we look at the Necker cube or Wittgenstein's open box top. These are illustrated in Figure 3a and 3b, respectively. For example, Wittgenstein tells us we might see figure 3b as an open box top, a box facing us at an angle, as a flat wire frame or as a two-dimensional series of lines. Yet despite the differences in what we might see it as, something remains stable throughout all the interpretations.[7] Although it is only linguistically expressible under some description or other, we seem to have an invariant experience upon which these various interpretations rest. Thus as Peacocke says, "We have here another example of the nonrepresentational similarities between experiences" (Peacocke 1983: 16).

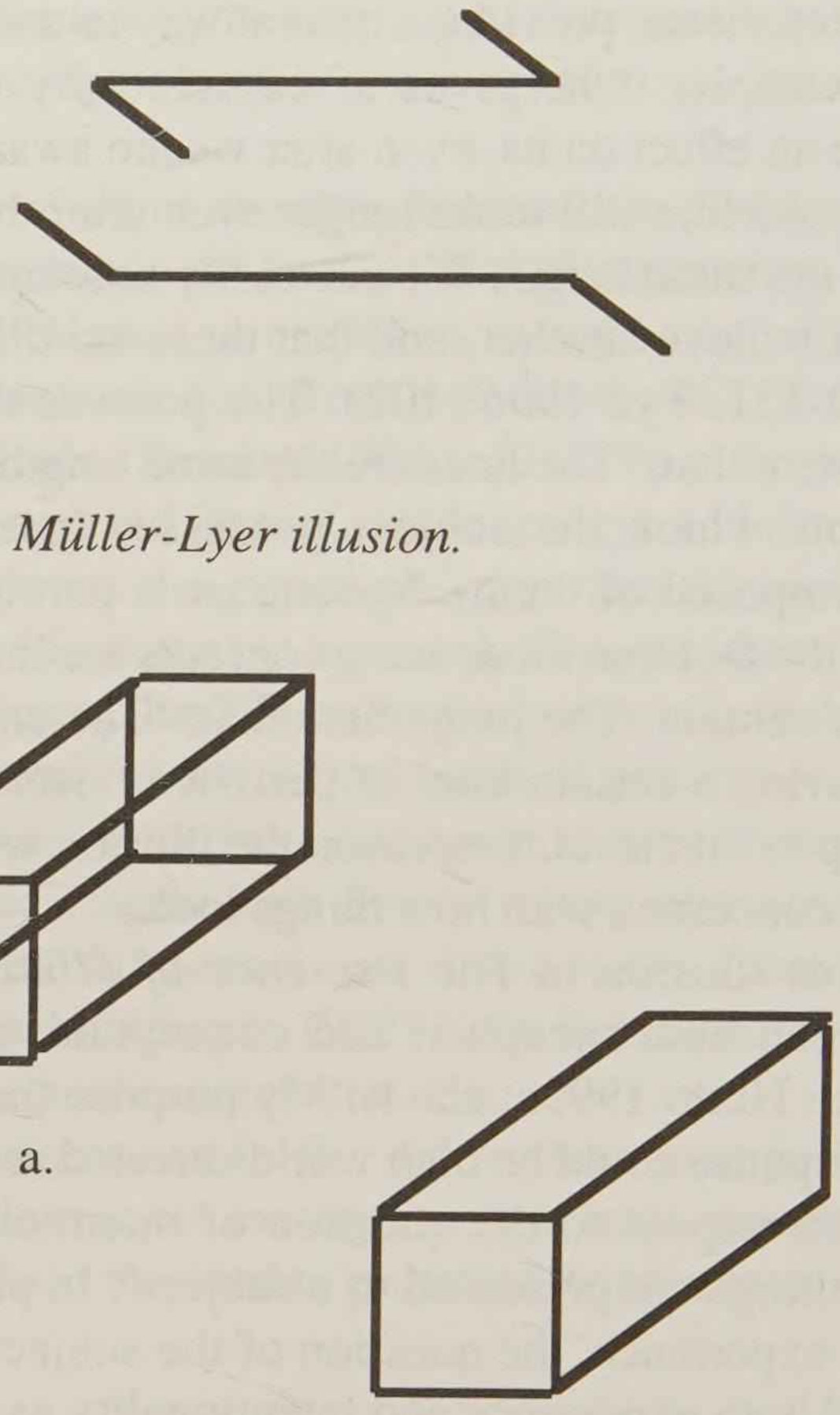


Figure 2. *A version of the Müller-Lyer illusion.*

Figure 3. *A version of the Necker cube and Wittgenstein's box top*

2.2.2. The Imagery Debate

There is also reason to think that imagery is nondiscursive in a similar way to perceptual experience and for a connected reason. For, just like drawings with multiple aspects, images do not, in themselves, refer or unambiguously mean anything. Images can resemble too many things in too many ways to make them sufficient vehicles of reference or representation. Consider Putnam's ant who accidentally makes a series of lines that happen to resemble Churchill. Of this Putnam writes:

> An ant is crawling on a patch of sand. As it crawls, it traces a line in the sand. By pure chance the line that it traces curves and recrosses itself in such a way

that it ends up looking like a recognisable caricature of Winston Churchill. Has the ant traced a picture of Winston Churchill, a picture that *depicts* Churchill? Most people on reflection would say, on a little reflection, that it has not. The ant, after all, has never seen Churchill, or even a picture of Churchill, and it had no intention of depicting Churchill. It simply traced a line (and even that was unintentional), and a line that we can 'see as' a picture of Churchill (Putnam 1981: 1).

Barring appeals to magic, Putnam rightly claims that, "...what goes for physical pictures also goes for mental images..." (Putnam 1981: 3). What anchors an image to one thing or another, what makes it referring, is an interpretation or cognitive take on it. Moreover, even if I did stipulate that my image is one, say, of my friend Roger playing the piano, I would have done nothing, as of yet, to specify what it means. Does it say that Roger is a good piano player? Or that he is a bad one? Or that he needs a new piano? Or that he is obsessive? The image itself says nothing which might be true or false. Yet, if we follow the fashion of Frege, a thought is precisely, "...something for which the question of truth can arise" (Frege 1988: 36). But clearly, uninterpreted images are not. This is why for Frege empiricist ideas, images, feelings and other subjective denizens of the mind were the concern of psychologists, whereas thoughts alone provided a subject matter fit for scientists and philosophers. He wrote:

> Not everything is an idea. Otherwise psychology would contain all the sciences within it, or at least it would be the supreme judge over all the sciences. Otherwise psychology would rule even over logic and mathematics (Frege 1988: 51).

Frege rejected such psychologism precisely because he viewed logic to be an objective science concerned with the laws of thought; it was allegedly *on par* with the study of the laws of heat in physics. For the very same reason today's cognitive scientists reject imagistic mediums of thought and along with them resemblance theories of reference. Rollins, for example, is explicit on this point. He writes, "The image can have a multitude of meanings; thus, by itself it is cognitively impotent. The language of thought, therefore cannot be iconic" (Rollins 1986: 57, cf. Fodor 1975: 177–184, Carruthers 1996: 31–33). One must be careful in grasping the scope of this rejection. It is not a rejection of the existence of images *per se*. Indeed, after concluding his own attack on psychologism, Fodor is quick to make this very concession in a Humean tone of voice.

> Hume's point is that the abandonment of the resemblance theory of reference is compatible with preserving the insight that (some) internal representations are, or may be, nondiscursive (Fodor 1975: 193).

I agree. But I go further and say that not only are experiences and images nondiscursive, for this reason they are not internal representations at all. I make this case in the next chapter, section three. However, in taking this line I am driven into the territory of a vast and controversial literature concerning the nature of images. But I enter it at a tangent, for the standard imagery debate between pictorialists and descriptionalists has been one about the proper representational form of images. As Dennett colourfully puts it, it is a battle between iconophiles and iconophobes (Dennett 1985: 175). But this debate assumes precisely what I deny: that images are representational. I am interested in it only because, despite a seemingly perennial disagreement between the two camps, it has brought to light a body of empirical findings which ought to encourage us to think of imagery as nondiscursive. Cohen summarises the data. He writes:

> First, mental images can be rotated, and such rotations take time linear in the angle of rotation. Second, mental images can be scanned. They seem to have parts, and scanning between these parts takes time linear in the spatial separation between them. Third, imagery tasks interfere more with visual tasks than with verbal tasks. Fourth, images seem to have subjective size. Fifth, there is a maximum visual angle which limits the size of images (Cohen 1996: 159).

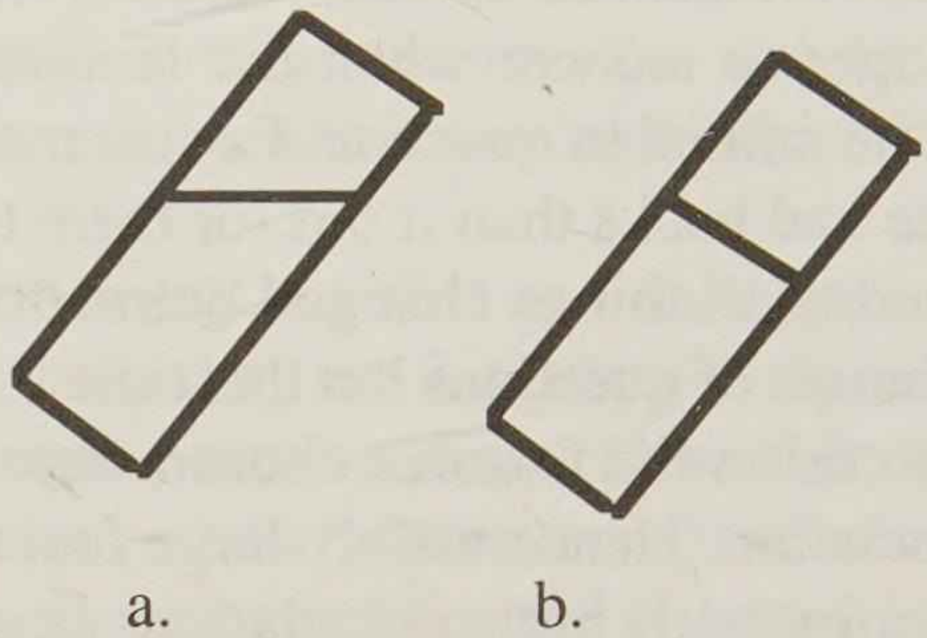
This data suggests that there is a continuity between imagery and visual experience but a discontinuity between imagery and verbal or conceptual responses.[8] *Prima facie*, these facts can be neatly explained if we think of images as being similar in key respects to perceptual experiences. The pictorialists accept this for they claim that both images and perceptual experiences are nondiscursive pictorial mediums of representation. In contrast, defenders of the view that images are best understood as a kind of description have an uphill struggle in providing an explanation of this data. Since I am not interested in the pictorialist-descriptionalist debate about representational mediums, I simply want to emphasise that whereas these facts about imagery are clearly compatible with a nonconceptualist account, conceptualists can only deal with them by making a series of *ad hoc* amendments. I will not rehearse all such cases, for reasons of space. Instead I offer one illustrative example to demonstrate the nature of the problem.

Consider the series of experiments in which subjects were tested for differences in their reaction times in recognition tasks involving the use of imagery and those without. In the first instance subjects were asked to answer questions about

whether certain kinds of animals had certain features, without using imagery. As expected they took longer to answer when the features asked about were not highly associated with the animal in question. For example, it took them longer to say whether or not mice had backs than it did for them to say they had whiskers. In contrast in the second trial, things changed dramatically when subjects were asked to answer a similar set of questions but this time they were instructed to use imagery. But on this occasion the features chosen were inverted with respect to size and degree of association. Hence visibly large features with low association and visibly small features with high association were selected. Despite this subjects using imagery proved quicker in responding to the large features with low association than small features with high association. In the light of the original findings this result wants explaining. The pictorialist and the nonconceptualist can easily explain it by stressing that imagery mimics perceptual experience and that it is primarily nondiscursive. But no equally good reply is readily available to the conceptualist(Cohen 1996: 156–157).

Nevertheless, to avoid guilt by association, there are several stock objections to pictorialism which must be addressed if we are to clarify the potential threat to the form of nonconceptualism I am advocating. First of all, we must unleash Dennett's infamous striped tiger before re-caging it. Dennett claims that if an image of a tiger is like a picture or snapshot, then it must have a determinate number of stripes. But he rightly claims that it simply isn't the case that our images of tigers are necessarily determinate in this way, unless of course we specifically stipulate the number of stripes our image is to have. This is comparable to what goes on in perception. For example, we may or may not notice the number of stripes a real tiger has, unless this is the focus of our attention. Thus Dennett claims that, "The reports of perception are written to order" (Dennett 1969: 139). Indeed many philosophers take it as read that perception is a dynamic business which involves visiting and revisiting a changing scene, as we navigate through it.[9] If this is right, far from being a static or passive affair, examining a visual experience is not like examining a stable snapshot in one's head.

I concede that images and experiences are not best modelled on snapshots (Fodor 1975: 187–190, Cohen 1996: 177–179). Moreover I reject the pictorialist claim that images represent or refer by means of resemblance. Furthermore I agree that noticing real tiger stripes or generating imaginary ones are both cognitively directed affairs. But making these concessions does nothing to upset the claim that images and experiences are at bottom nondiscursive and nonconceptual in nature. Hence rejecting most or all of pictorialism does not require rejection of the claim that images and experiences are similar and in certain central respects that they are nondiscursive (cf. Tye 1991: 27-28, 68, Duran 1997: 380).



a. b.

Figure 4. *Two drawings of liquid filled inclined beakers*

Still even this more modest claim might be disputed. For example, Pylyshyn has claimed that images must be discursive in nature on the grounds that they are cognitively penetrable (cf. Pylyshyn 1984: 227–228). The fact that our capacity for imagining is not encapsulated is revealed by the fact that images are affected by a subject's background beliefs and desires. A standard way of demonstrating this is by examination of the drawings of four-year olds. Typically, when four- year olds draw inclined beakers which are full of liquid they tend not to adjust the angle of the liquid appropriately, unlike older artists. The obvious reason for this is that they are ignorant about the effects of gravity and this lack of knowledge influences what they draw. The difference is illustrated in Figure 4 which contrasts the adult drawing in 4a with that of the child's in 4b.

The way to respond to this is to claim that images aren't cognitively penetrable unless they are interpreted or put under a description. Visual experiences and images are tied up with all sorts of responses and associations but unless cognitively mediated they forge no rational links. For example, the sight of rustling bushes may cause me to think that there is an animal in the shrubbery ahead, and this thought may begin a train of reasoning which results in my deciding to cross the road. The point is that because the visual experience is initially interpreted, it would, in theory, be possible to trace the cognitive links between the beliefs and desires in question that led to my action. Yet this could not be done if the visual experience was uninterpreted. But if this is right, why shouldn't we just say that experiences and images are, in and of themselves, cognitively impotent? For cognitive impotence is not causal impotence. In taking this line we can agree that to be cognitively penetrated an image would need to be cognitively characterised. Nevertheless this provides no reason to suppose that uninterpreted images do not causally provoke thought and action. Indeed it is easy to imagine that certain images might provoke responses of fear and aversion even in subjects which are incapable of any thoughts at all. For example, certain sights or sound might just be associated with pain and hurt. But to have such

psychological reactions of this kind doesn't depend on having cognitive abilities such as categorising or recognising.

Pylyshyn has anticipated this type of reply but regards it as inadequate because of his wider views about theorising in cognitive science. He argues that unless images were in fact a sub-species of syntactically structured representation we would have no means of understanding how they interact with other contentful representations, like beliefs and desires. In other words, because nondiscursive images lack the appropriate structure they could not be basic processes or components of a unified functional architecture (Cohen 1996: 170–171, Duran 1997: 374–375, 378, Block 1983: 577). Quite so. But I do not find this worrisome, for I do not accept that the interactions between beliefs and desires ought to be understood in classical cognitivist terms either (cf. Hutto 1999c: ch 2–5). For this reason I find absolutely no bite to the objection that nondiscursive images are not part of the basic functional architecture of the mind. Neither are beliefs and desires. If we reject classical cognitivism but still want an account of the causal mechanisms which explain the interaction between images and beliefs, we must simply look to neurological processes. What I wish to stress is that the real basis for Pylyshyn's rejection of nonconceptual imagery hails from a commitment to discovering a functional architecture that unifies all cognitive processing. Without that constraint we are free to appeal to nonconceptual experiences and images in order to understand certain behaviours.

Consider Carruthers' suggestion about how we might explain the novelty displayed by Köhler's apes. He writes:

> It may be that what the chimp has to be able to do, to arrive at a sudden solution to such a problem, is imagine the boxes piled one on top of the other, and to visualise, and then act on, the result. Although this is intelligent and sophisticated, there is no reason to believe that the chimp must also be capable of thinking about its own sequence of images...(Carruthers 1996: 221)

However if we accept that uninterpreted experiences are cognitively impotent, and hence open to multiple interpretation, it might be thought that this fact provides reason for thinking that images cannot be like experiences. This is because the claim of perceptual similitude apparently conflicts with the fact that some experimental subjects are unable to re-interpret images once they are formed (cf. Chambers and Reisberg 1985, 1992). This can be explained by the fact that the images in such experiments are not naturally occurring; rather they are descriptively generated. They are made to cognitive order. Subjects are asked to imagine certain things and in this sense their images begin their lives under descriptions. Consequently, it is not surprising that they differ from visual

experiences with respect to the possibility of re-interpretation as they are generated from a cognitively loaded, as opposed to non-cognitive, source. But this alone is not sufficient to cast doubt on the claim of perceptual similitude. As Rollins notes, all we can rightly conclude from this is that, "The evidence suggests that imagery and perception do not share a fully common processing path..." (Rollins 1994: 355). Moreover this claim is not very damning, for even if these paths are not completely the same, we need not deny that they overlap for the most part. And this conclusion lends indirect support to Currie's hypothesis that imagery is a kind of simulation of vision.

Currie wonders, if experiences and images are alike in certain central respects, then what explains this commonality? He speculates that visual imagery is produced by substantially the same mechanisms that produce experiences in our normal visual system, except that when these mechanisms generate images they are operating in an off-line mode.[10] In such instances the visual system is fed different inputs than usual. For example, instead of retinal stimulations it might be supplied with a command to produce such and such an image.[11] Furthermore in such cases the visual system will generate different outputs than usual. It will produce images rather than experiences. Of course the outputs will be similar in certain central respects, but they will not be exact replicas.[12] Minimally, I suggest that they will both be nondiscursive and sensational in character, whatever else they may or may not have in common. This appears to be supported by the psychological data, especially if it is read neutrally, without commitment to the representational thesis advanced by advocates of pictorialism or descriptionism (cf. Podgorny and Shepard 1978, Segal and Fusella 1970, Farah 1985).

Indeed, a cardinal virtue of the simulation of vision hypothesis is that it is neutral with respect to the imagery debate. All it says is that images must be like experiences in certain central respects. Nor does it commit one to a claim of exact perceptual-imagistic similitude (cf. Currie 1995a: 36–38, Cohen 1996: 167). What does follow is that if Currie's hypothesis is correct, then the capacity for visual imagery is asymmetrically dependent, phylogenetically and ontogenetically, upon the mechanisms of visual experience. And in this respect the hypothesis is partially supported by neurological evidence, from PET scans, which show that the same centres of the brain operate during visual perception and imagery tasks, particularly areas 17 and 18 (Kosslyn *et al.* 1993). This neurophysiological data has also been gathered through other techniques (Farah 1988). For now I will draw this discussion to a close, but I will consider this proposal again in section 3.2.1 of this chapter.

2.2.3. The Fine-grainedness of Experience

So far I have suggested and speculated. But no matter how plausible or intuitively appealing these conjectures have been, the real question is: Are there any strong arguments for thinking that experience must be nonconceptual and nondiscursive? We come closer to one when we consider the debate over the fine-grained content of experience. Peacocke famously set the stage for this debate when he claimed that:

> Our perceptual experience is always of a more determinate character than our observational concepts which we might use in characterising it. A normal person does not, and possibly could not, have observational concepts of every possible shade of colour (Peacocke 1983: 11).

Peacocke's thought is that we can discriminate many shades of colours even though we lack concepts or linguistic labels corresponding to them. This is easily shown. When I was discussing the colours for the cover of my first book I was asked to choose from a vast array of colour shades, all variously labelled with different numbers on a PMS colour card. I was able to see the differences in shade, under these conditions, but without the colour cards I would have been unable to tell the closer shades apart. I certainly had no names for them ready to hand. Hence it would appear that it is not necessary to have the relevant concepts in order to make such discriminations.

This claim has sparked an interesting and ongoing debate over whether or not conceptual theorists can accommodate the fine-grainedness of experience. In particular, McDowell is not impressed by the fact that there are no ready made linguistic labels for the various colour shades. He claims it is possible to conceptually capture the relevant differences by applying the demonstrative concept '*that* shade'. Hence, while he recognises that it is a minimal condition on the possession of a concept that one has a corresponding recognitional capacity, he suggests that, "What is in play here is a recognitional capacity, possibly quite short-lived, that sets in with experience" (McDowell 1994: 57).

But as Annalisa Colive has convincingly argued, there is no such short-lived recognitional ability. She claims that there is:

> ...an overwhelming amount of empirical data which show that while our discriminatory capacities, with respect to shades – or, as psychologists find desirable to specify, hues – of colours, are quite fine-grained, our recognitional ones are pretty coarse...(Colive 1999: 7).

She cites Hardin who claims that although ordinary subjects can discriminate nearly ten million colours, even trained colour spotters are at best able to recognise thirty colours and only in very controlled conditions (cf. Hardin 1988: 88–89). The point is that in the absence of external aids, such as the PMS colour card I mentioned, we would be unable to demonstrably re-identify '*that* shade', even after only a short space of time. This usefully demonstrates the importance of distinguishing discriminatory from recognitional capacities. Colive also argues that it will not help for conceptualists to appeal to the idea that our demonstrative concept, '*that* shade', is a vague concept. Such a move is designed to allow that although we cannot precisely identify all the shades, we might be able to pick out shades which are not too dissimilar from the original. But this only serves to reinforce the original conclusion that we must distinguish our recognitional capacities from our discriminatory abilities. She concludes that the nonconceptual approach is superior in that it allows that experiences can be bound up with mere discriminatory abilities rather than recognitional ones. Moreover, given that the demonstrative concept '*that* shade' is nothing more than a retrospective labelling, it would be explanatorily hollow to invoke it in order to explain how it is we manage to make such fine discriminations in the first place (cf. Colive 1999: 11, Bermúdez 1998: 55–56).[13]

But conceptualists still have a move open to them. They can argue that basic discriminations and reactions are nonconceptual, while denying that they have any experiential features at all. Evidence from cases of blindsight is frequently cited as having empirically established this conclusion. Blindsighted patients suffer from damage to the visual cortex which prevents them from seeing. Yet they are still able to display the surprising ability to guess, better than chance, whether or not certain stimuli are present in their environment. Consider the case of G.Y. who is an exceptional blindsight patient. When prompted G.Y. can guess better than chance about the presence of a slow-moving light in his visual field, but he denies any awareness of the stimulus. His case is even more interesting because he displays a further capacity for self-cueing. That is to say, if the light is moving fast enough he can prompt himself. Moreover, under these conditions he does report awareness of some kind, though he never claims to have experiential awareness of the light *per se*. Thus, in carefully relating G.Y.'s commentary, Weiskrantz writes:

> He said, 'I knew that there was something moving, I was *aware*'. But the transcript then goes on: he was asked, 'Can you describe it?' Answer: 'No'. Question: 'What did you see?'. Answer: 'I didn't see anything'....there was actual awareness, a feeling. However, even here the subject insisted that it was not conscious *seeing* (Weiskrantz 1997: 66, cf. also 41, 88–89).

G.Y.'s case helps to illustrate an important difference between being able to respond to a stimulus and being able to see it. But Weiskrantz does not distinguish between seeing, which involves experience, and seeing as, which involves conceptualisation. He only recognises a contrast between capacities for stimulus discrimination and object identification. On his account, the later is essentially connected with an ability to produce commentaries (Weiskrantz 1997: 75). *Prima facie*, this distinction appears to be enough to enable us to classify other disorders such as forms of apperceptive and associative visual agnosia. What distinguishes these disorders from each other is that apperceptive sufferers have difficulties with object perception whereas associative sufferers have difficulty with object recognition. For example, subjects with apperceptive agnosias are sometimes unable to discriminate even simple shapes. In contrast, those suffering from the associative form can discriminate and apparently see normally but they are unable to recognise or categorise familiar objects (cf. Bermúdez 1998: 79–81).

There is indeed an undeniable connection between our ability to use language and our ability to identify objects under categories. Nevertheless I do not see matters in the same way as those who endorse a kind of Cartesian, thorough-going intellectualism about experience. According to their two-tiered picture, there is a straightforward divide between those capable of producing commentaries and those which are not. Only the former are capable of having experiences; others get by with the mere unconscious processing of information. Thus to return to the point about the fine-grained capacity for colour discrimination, the conceptualist might claim that such a capacity is indeed nonconceptual, but for this very reason deny that it is experiential.

In contrast, I believe that the capacity for nonconceptual, qualitative experience comes somewhere between a mere capacity for stimulus discrimination and the capacity for identifying objects conceptually (or linguistically). Thus I distinguish cases of actions which involve nonconceptual experiences from those which involve mere informational sensitivities. In the next section I make my case for carving things up in this way by arguing that nonconceptual experience is a necessary condition for conceptual development.

3. Experience, Conceptual Description and Theory

When endorsing nonconceptualism about experience, it is important to keep two issues separate. The first concerns the question of what makes it possible for us to describe the character of our experiences, given that they are nonconceptual. The second concerns questions about how we are able to understand the quality of experience of other forms of life, or different kinds of minds, if we can at all (cf.

Dennett 1997: ch. 1). I address the latter concern in chapter two, section 2.1. But first I want to give attention to the first one.

3.1. The Conceptual Expression of Experience

We might wonder: If experience is essentially nonconceptual, how is it possible that we, human beings, could ever appreciate the quality of each other's experience by description alone? How do we compare experiences by means of language? For it certainly appears as if we can descriptively mark the relative differences between our experiences by linguistic means. Words are enough to convey what-it-is-like; to be hungry during a long-winded lecture, to feel a gentle rush of wind on one's face on a warm spring day, to recognise a face but be unable to place the name, to look down from a dizzying height, and so on (cf. Searle 1992: 81). In describing *how things appear to us* we are giving descriptions of our experiences. If I say, 'I see an olive green boat in the harbour and it has a pale white sail', this utterance tells you what I see, albeit it does not do so in a particularly detailed way. We must distinguish between our ability to index our experiences and our ability to indefinitely finesse such descriptions.

Yet, under the sway of Cartesianism, some philosophers deny that we can speak freely about the quality of such experiences. They hold that our conscious lives are logically private to individuals and for this reason it is impossible to understand another's experiences.[14] If this thesis were correct, then the fact that we appear to communicate sensibly about our experiences is just that – an appearance. This is because experiences would be radically inexpressible. Farrell provides an example of this kind of thinking when he remarks that:

> When, for example, we look at a red patch, we all just *know* what it is like to have the corresponding experience, and we all just *know* how it differs from the experience we have when looking at a green patch. *We cannot describe this difference* (Farrell: 1950: 32, emphases mine).

But what is Farrell suggesting? Note that in making reference to red and green patches in the above quotation, he effortlessly picks out two distinct kinds of colour experience. Moreover his confidence that we know the types of colour to which he refers is grounded on the fact that he is writing for fellow human beings, who, he assumes, all experience the world in much the same way. This assumption is vital as is revealed by an analysis of the conditions that make interpretation possible. And it is precisely an analysis of this kind which, ultimately, provides strong grounds for recognising that experience is nonconceptual. To establish this it is necessary to consider Davidson's work on interpretation.

3.2. The Role of Experience in Interpretation

Following in the footsteps of Quine, Davidson exposed the necessary conditions which make interpretation possible by appeal to his theoretical construct, the radical interpreter. According to Davidson's analysis, it is absolutely crucial in interpreting that we make a charitable assumption which, "...prompts the interpreter to take the speaker to be responding to the same features of the world that he (the interpreter) would be responding to under similar circumstances" (Davidson 1991a: 158, cf. Malpas 1992: 47). Davidson labels this assumption the principle of correspondence.

However, to be fully clarified, the notion of response which lies at the heart of this principle must be sub-divided. We must recognise that it has both an intentional and experiential aspect. In *The Presence of Mind*, I suggested that, for conspecifics, directedness at a common focal point could be explained by a modest biosemantic theory of content. Hence if two creatures had the same evolutionary origins and if their sensory systems had the same proper functions, then this could go some way to explain why they could be directed at the same types of things. This is important because being directed at common features of the world is a pre-requisite for genuine triangulation. If this were not the case, speakers would always be quite literally talking past one another. For example, as can sometimes happen, a child might attend to the wrong object in an early learning situation. To modify one of Davidson's own examples, let us say the child is attending to the shiny handle on the table drawer whilst the teacher is trying to teach it the word for table. This scenario is, of course, hideously under-described. A full and proper account would outline the measures employed to ensure that this kind of attentional divorce did not occur (cf. M. Williams 1998: 191–192).

However, if appeal to the interpretative triangle is really to provide the basis for understanding meaning, there must be more to the story than just the fact that two subjects focus on a common object. We must recognise yet another element inherent in Davidson's notion of response. For not only must subjects be capable of responding to the same distal stimulus, they must do so in roughly the same way (at least in a number of basic cases). Although we may be in fact looking at the same things, it is possible that your way of experiencing them is vastly different to mine. This might be the case, for example, if two creatures of different species evolved different ways of responding to the objects of mutual competition. If you saw round things as square and I saw them as round, we could not triangulate (if this was our only point of contact). However, even such cases of localised mismatch need not be entirely damning, since we might make up for this disparity elsewhere. But discontinuity of this kind could not be widespread and it could not be a standard feature of our most basic responses to things. A crude version of this idea is graphically represented by Figure 5. I am alive to the

dangers of this kind of pictorial representation and I do not wish to endorse the idea that experiences are mental objects which live in the heads of subjects. But that issue is orthogonal to the purposes of the present discussion. With the above qualification in mind, this model helps to illustrate the point I want to make. That point is that if we did not defeasibly assume a common ground between ourselves and the other in *what* we see and *how* we see it, interpretation would not get off the ground at all. No conflict would be intelligible. I can only disagree with you if I can reasonably suppose that I know what you are saying. Agreement in basic seeing is thus a necessary condition for genuine triangulation in the simplest cases, which is in turn a necessary condition for interpretation (cf. Johnston 1993: 127–129).

Some Davidsonians will baulk at this claim. As they see it, augmenting the notion of response by invoking the idea of shared experience is a retrograde move. This is largely because the very idea of experience has been made suspect by empiricists and their followers. Yet despite this, the notion is not entirely bankrupt. Still we must exercise caution on at least two fronts. Firstly, experiences are frequently imagined to be exotic constituents of our private, inner mental realms. In this guise they are metaphysically dubious. But, as will become clear in chapter four, to recognise the existence of experiences it is not necessary to recognise the existence of private objects. Another reason to harbour reservations about experiences stems from the bad idea that they play a foundational and justificatory role in epistemology. Davidson clearly rejects this claim (cf. Davidson 1986b).

All the same, as I see it, a commitment to nonconceptual experience is just another way of expressing Davidson's commitment to the idea that genuine triangulation depends on having a shared experience of a common cause. On this matter he writes:

> It takes two points of view to give a location to the cause of thought, and thus to define its content. We may think of this as a form of triangulation: each of two people is reacting differently to sensory stimuli streaming in from a certain direction. Where the incoming lines intersect is the common cause. If the two people now note each other's reactions (in the case of language, verbal reactions), they can each correlate these observed reactions with their stimuli from the world. A common cause is determined. The triangle which gives content to thought and speech is complete (Davidson 1996b: 166).

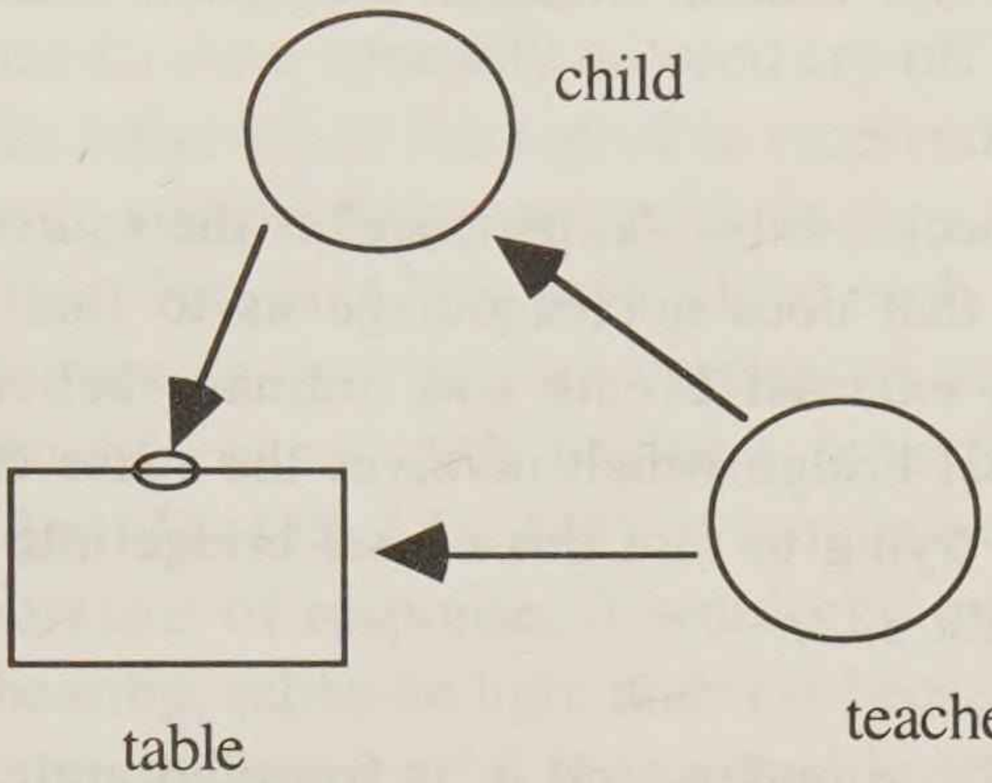


Figure 5. *Divorced attentional focus*

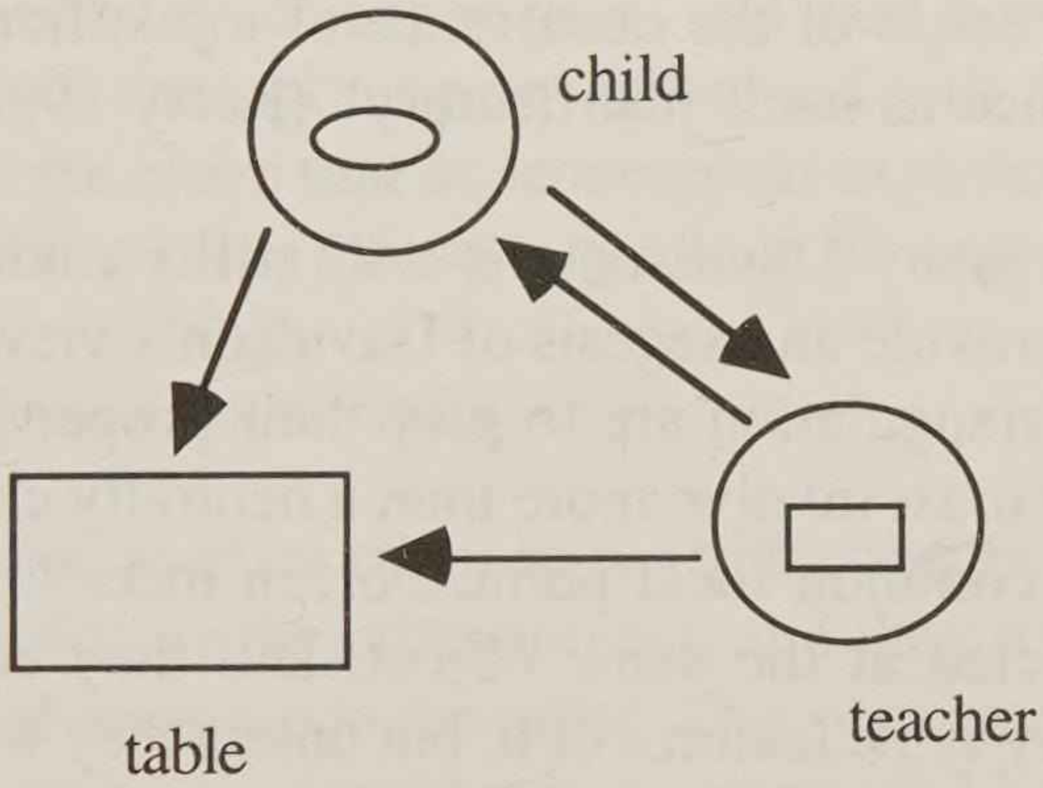


Figure 6. *Differences in responses to the same item*

In the above quotation Davidson says that the subjects will be 'reacting differently' to the sensory stimuli. Yet in the conclusion of the same essay, he emphasises that, "Gauging the thoughts of others requires that I live in the same world with them, sharing many reactions to its major features, including its values" (Davidson 1996b: 176). As I am using it here, the term experience encompasses these shared, or rather shareable reactions, which provide a basis for a meeting of minds. But we must be careful here to see that similarity at the level of retinal patterns or neural activity is not only an unlikely occurrence; it would not be enough to capture the sense of 'shared reactions' to which Davidson alludes. This is because such retinal and neural reactions are not shareable in any sense. On these grounds, I believe Levett is right to claim that only experiences which are integral to our basic forms of seeing could play the required, "...individuating role..." (Levett 1994: 29). They alone enable us to non-reductively index the

common causes of our mutual interest. Davidson comes close to admitting this when he writes:

> In this rather special sense, 'experience' is the source of all knowledge. But this is a sense that does not encourage us to find a mental or inferential bridge between external events and ordinary beliefs. The bridge is there alright – a causal bridge which involves the sense organs. The error lies as Neurath saw in trying to turn this causal bridge into an epistemological one (Davidson 1986b: 332).

Experience, as I too understand it, is foundational. But the foundation is not epistemic. It is a foundation upon which conceptual development, in part, rests. Yet it is not a foundation out of which concepts are composed. Furthermore, I make no suggestion that experiences act to justify our judgements. Like Davidson and Rorty and unlike McDowell, I am prepared to, "...draw a sharp line between experience as the cause of the occurrence of a justification, and the empiricist notion of experience as itself justificatory" (Rorty 1998b: 141, cf. also Wright 1998: 400–401).

I imagine that many Davidsonians will still remain unconvinced. But my purpose is not to provide an exegesis of Davidson's views; it is only to show that if basic cases of triangulation are to play their proper part in the interpretative triangle, then they must involve more than a neutrally characterised anchoring of two subjects to a common focal point. For, in theory, two organisms could be intentionally directed at the same object, and they could be informationally sensitive to the very same features of it, but unless they were capable of having the same kind of experience of it, they would be unable to triangulate in a genuine sense. I will strengthen the case for thinking this in section 3.3 by appeal to issues concerning the dynamics of conceptual development. Although Davidson refuses to speculate on such developmental matters, it is just such speculation which gives us the strongest reason to suppose that we need to appeal to a notion of nonconceptual experience in order to understand genuine cases of triangulation. But such triangulation requires still more than this. It requires not only that subjects are capable of nonconceptual experiences, but that they can, in some sense, share their experiences. There are at least two different respects in which experiences need to be shareable.

Firstly, they must be similar enough such that they could be shared by subjects of the same kind. Yet it does not follow that simply being a creature of the same species guarantees this. For example, given what else we know about bats, if we presume that they had experiences, it would still not be possible for them to triangulate. This is because their echolocational methods of navigating the world would make their form of experience necessarily private to individuals, in just the

way the Cartesian suggests is our lot. For example, in order to direct themselves at their prey, a bat must bounce its own, specially tailored cry off its intended victim and filter out this and other noise when the signal is received back. As a result, although this enables them to successfully capture their prey often enough, they must pay an interesting price. For, as Akins says, since each returning signal is unique, "The bat thus achieves its own private version of our public 'sun' – a directed 'flashlight' beam of sound with uniform 'spectral' and intensity properties" (cf. Akins 1993a: 137–138, 131, 141). If human experience rested on such individualistic mechanisms of response, it would be unshareable as well. Thankfully vision, unlike hearing, relies on light and it is because there is a public sun which uniformly illuminates our world, it is possible for us to experience things in much the same way.

But experience needs to be shareable in the further sense that proper triangulation requires subjects to reciprocally recognise that the response of the other is similar to their own and *vice versa*. Once I have given attention to this social aspect of the shareability of experience, and said how it is possible to achieve it prior to having a conceptual point of view, I will be in a position to proceed with my case for the claim that nonconceptual experience, as opposed to mere informational sensitivity, plays a necessary role in conceptual development.

3.3. On Simulation and Basic Communality

In order for there to be genuine cases of primitive triangulation each subject must respond to the same situation as the other subject, and they must in some sense recognise this similarity of response in the other. This phenomenon is sometimes known as shared or joint attention. But how is it achieved? I hope to address this question by leaning on the idea that, *at bottom*, joint attention depends on simulative abilities that engage us practically and emotionally with the situations of others and the objects of their concern. Moreover, I want to emphasise that in the basic cases these abilities do not presuppose any conceptual abilities on the part of simulators.

Appeal to rudimentary forms of simulation is clearly an useful way of understanding simple forms of empathy. These are cases in which we are transformed physiognomically, emotionally or bodily in response to the outward behaviour of others. In such cases we find ourselves, often irresistibly, moved by another's expression, activity or situation. We can focus on any of these. For example, it is a primitive natural reaction for us to be affected by another's twinge of pain, embarrassment or shock. Often we are caused to laugh because of someone else's laughter, not necessarily because we find anything funny. This phenomenon is variously known as emotional or subliminal contagion (Nichols *et al*. 1996: 64, Gordon 1996: 13). Nichols, Stich, Leslie and Klein note, "...most

infants show....emotional contagion and even sophisticated empathic behaviour by 18 months" (Nichols *et. al.* 1996: 64).

Other domains in which simulation has a natural grip is in cases of facial and motor mimicry. Consider that neonatal infants show a capacity for facial imitation, even at the tender age of thirty-two hours old (cf. Bermúdez 1998: 126). And we often find ourselves adopting bodily stances similar to those of others when we take an interest in their projects (cf. Goldman 1992b, Nichols *et al.* 1996: 63–64). Hence we pull back, lurch forward, flinch or sit uneasily when we see someone doing something frightening, dangerous, painful or unsteady. Anyone who has ever been absorbed in an occurring drama and found themselves reacting to what is happening to its participants (e.g. even to what is happening to a character in a film) will recognise this phenomenon.

It is important to realise that these basic forms of simulation are not best seen as intellectually governed enterprises. Consider Bermúdez's way of characterising the problem that infants must solve in order to imitate faces. He writes:

> Facial imitation involves matching a seen gesture with an unseen gesture, since in normal circumstances one is aware of one's own face only haptically and proprioceptively. If successful facial imitation is to take place, a visual awareness of someone else's face must be apprehended so it can be reproduced on one's own face (Bermúdez 1998: 125).

Put this way it might be thought that such neonatal imitation demands the manipulation of a fair bit of knowledge. But it would be extremely precocious of human infants if they were theoretically accomplished at such a young age. To make such a story remotely plausible, we would have to revise our usual understanding of what it means to deploy information or to operate with a theory, as Bermúdez does. This ties in with Gordon's claim that simulation, "...operates primarily at the sub-verbal level" (Gordon 1986: 170). Yet, as I will argue in the next sub-section, it is much more plausible to think that cases of emotional contagion, imitation and motor mimicry are better explained by subjects' systems of off-line natural response rather than by appeal to their capacity to theorise or the engagement of sophisticated, sub-personal information processing capacities. The central idea of this alternative proposal is captured in the following quotaton from Gordon. He writes:

> ...in seeking an explanation of your friend's action, you were looking for features of the environment (features you believed it to possess) that were *menacing, frightening, attractive*, and the like. This is not a matter of looking dispassionately for features believed to produce certain characteristic actions or emotions. Rather, it is a search that essentially engages your own *practical*

> and *emotional* responses. This is an indication that the procedure is *projective*, unlike the search for a naturalistic, non-animistic explanation of a physical phenomenon (Gordon 1992: 15).

According to Gordon the major difference between simulation theory and theory-theory is grounded in their respective commitment to hot and cold methodologies (Gordon 1996: 11). Simulation is a hot methodology in that it, "...exploits one's own motivational and emotional resources..." (Gordon 1996: 11). But how might this work?

3.3.1. The Off-Line Processing Proposal

The off-line processing proposal provides a plausible way to think about such basic forms of simulation. This licenses the idea is that the ordinary perceptual mechanisms are being put to a different end than the mere production of experiences, just as Currie speculates happens in the case of imagery. Only this time the end is to produce an imitation or other response to the outward expression of another. If this is right, social creatures exploit their own natural resources thus obviating the need to employ a theory of any kind in order to simulate (cf. Currie 1995a: 37). From this perspective it is easy to see why the capacity for simulation is not limited to human beings. Many social animals respond in similar ways to one another. They instinctively respond to expressions of pain, anger or sexual interest in their conspecifics. This ability is sometimes called mind reading by today's behavioural ecologists, which can suggest that these animals are using some kind of theory.[15] But when this idea is contrasted with the off-line processing proposal, it loses much of its appeal.

Supporters of theory-theory often claim that such theorising need not be explicit. Still I do not think it plausible that animals, infants or even ourselves in some instances, simulate by means of a tacit, in-built psychological theory. And although a charge of implausibility is not decisive, unless theory-theorists can provide a workable theory of the mechanisms and representational contents that would allow such tacit operations, we have every reason to prefer an off-line processing proposal. In my view, it alone has the potential to provide the beginnings of a psychologically realistic, developmentally and phylogenetically credible account of our capacity for simulation. For example, consider Gallese and Goldman's discussion of the 'mirror neurons' newly discovered in macaque monkeys. These are a specific type of neuron which fire when one monkey observes the actions of another. But what is fascinating is that these are the same neurons which fire when the monkey itself performs such actions. As Gallese and Goldman write:

> [Mirror neurons] respond both when a particular action is performed by the recorded monkey and when the same action performed by another individual is observed. All MNs, as mentioned above, discharge during specific goal-related motor acts. Grasping, manipulating and holding objects are by far the most of effective actions triggering their motor response....[and] an equivalent system has also been demonstrated in humans (Gallese and Goldman 1998: 495).

With this evidence in hand they go on to say, "Our conjecture is only that MNs represent a primitive version, or possibly a precursor in phylogeny, of a simulation heuristic that might underlie mind-reading" (Gallese and Goldman 1998: 498). In this light, perhaps the theory-theory is more plausible when our concern is not simply to explain how the emotional, physiognomic state or action of another affects us. That is to say, sometimes what we want to understand is how we are affected by the other's reaction *to a situation*. Thus, while it is easy to see how the most basic forms of empathic simulation might be a precursor to joint attention, it can be argued that theoretical mind-reading is required for joint attention proper. Nevertheless, even when it comes to explaining the more ostensive referential behaviours, exemplified by shared attention, it is still possible to get by without theorising. For example, Gómez's conclusions about apes challenges the theory-theorist. He writes:

> Attention-following and understanding of the seeing/not seeing relationships seem to be well within the reach of apes....but this can be achieved with first-order representations....However, these first-order representations can be considered to be already a mirror of the mind, in that they represent the external expression of a mental activity – attending to something. The goal of this mental activity is a concrete target in the environment and the attitude connecting the agent and its target is a physical (perhaps I should say physiognomic) state that can be directly perceived in the agent (Gómez 1998: 85, cf. also 1996).

Gómez makes this suggestion in order to show that apes can 'mind read' even if they only rely on a shared-attention module as opposed to a theory of mind. Although I baulk at talk of modules, I agree that joint attention is not primarily an intellectually governed business. Relatedly, it is no accident that social animals must engage in ritualised and context-setting behaviours in order to 'make their minds known' (cf. Gómez 1998: 83, Harper 1991: 374). If this is right, then all joint attention requires is that the creatures in question have some nonconceptual means of responding to situations, a capacity for more basic forms of simulation and a further capacity to respond to the situation of others in the right contexts.

3.2.2. The Introspective Modelling Proposal

It is useful to contrast the off-line processing proposal with another reasonably popular view about the nature of basic simulation. This view might be called the introspective modelling proposal. According to this view we simulate by using ourselves as a model for the other (Gopnik and Wellman 1992, Baron-Cohen and Cross 1992, Perner 1996: 90, Fuller 1995: 22, Freeman 1995: 73, 78, Carruthers 1996: 22, Heal 1996: 76). The idea here is that we place ourselves, figuratively speaking, in the shoes of the other and predict what they are likely to do on the basis of that projection. Gopnik and Wellman liken this process to the manipulation of small-scale models in a planetarium (cf. Gopnik and Wellman 1992: 159).[16] When we use a planetarium for predictive purposes, we put the model through a number of counterfactual situations. For example, we might move our mock sun, earth and moon so as to simulate an eclipse. In using such a device it is not necessary to understand why the modelled entities behave as they do. Nevertheless, such a lack of knowledge does not necessarily impair our ability to predict how they will behave under particular conditions. Thus if the planetarium is a good one, say if God built it for us, then despite our lack of detailed understanding of cosmology, we could still use it as an accurate guide to the potential behaviour of the planets.

In a similar vein, those who support the introspective modelling proposal suggest that simulation, "...bypasses conceptual understanding by operating a working model of the mind and reading output. Fortunately, [the simulator] has such a model easily available, as all humans do, namely [their] own mind" (Gopnik and Wellman 1992: 145). As this last remark makes unmistakably clear, the introspective modelling proposal presupposes an introspective view of the self. It is grounded on the premise that our own minds are transparent and easily known. It further presupposes that we are justified in thinking that the selves of others are 'analogous' to our 'selves'.[17] For, as Fuller notes, this view depends on, "...a general premise stating that the model is relevantly similar to the [thing modelled]" (Fuller 1995: 22).

One seeming advantage is that this account appears to have phenomenological plausibility. That is to say, if we ask people how they know what someone else is seeing, it isn't unusual for them to say that they, 'put themselves into the other's shoes'. However, we must be careful in assessing the value of this kind of claim. It is not clear that such avowals are a sound guide to the nature of simulation. Psychologists never tire of reminding us that people are notoriously bad at saying how they actually accomplish certain tasks. The revelations of introspection, or as I prefer to say, reflection, are rarely an accurate guide in such matters. This aside, the very fact that this proposal revives worries about the nature of introspection is reason enough to reject it. For the onus is on the proponent of the introspective

modelling proposal to explain what constitutes privileged access to our own minds. I will not rehearse these issues here but will simply agree with Gordon's remark that, "No philosopher in the twentieth century should make use of these notions without confronting the objections [of Wittgenstein, Ryle, Strawson and Dennett]" (Gordon 1995: 54).

It is with this in mind that Gordon has repeatedly emphasised that his version of simulation should not be viewed as a process that relies on a capacity for introspection (cf. Gordon 1996: 34). This is precisely the wrong way around. To borrow Barry Smith's expression, what it requires is that 'I see your looking, not my own seeing'.[18] This is why Gordon persistently stresses that simulation is not a process of transportation, as the introspective modelling proposal suggests, but rather one of transformation (Gordon 1995, Gordon 1996: 12). This fits with Wittgenstein's reminder that it is as much a primitive reaction to attend to the wounds of others as we do to our own (cf. Wittgenstein 1967: §540). But this is not because we first observe their pain behaviour and make a judgement about their inner state on the basis of it. We simply react because it is natural for us to do so. To think that we respond to others on the basis of inference and analogy is, "...putting the cart before the horse" (Wittgenstein 1967: §542). For example, Wittgenstein remarks:

> You say you attend to a man who groans because experience has taught you that you yourself groan when you feel such-and-such. But as you don't in fact make any such inference we can abandon the justification by analogy (Wittgenstein 1967: §537).

> Do you look within yourself, in order to recognise the fury in his face?... (Wittgenstein 1982: §927).

In the sections of *Zettel* in which he discusses this kind of case, he goes on to ask, "What does the word 'primitive' mean to say here? Presumably that this sort of behaviour is *pre-linguistic:* that a language game is based on it. That is a prototype for a way of thinking not a result of thought" (Wittgenstein 1967: §541).[19] Indeed in the following remark I take him to be giving early expression to Davidson's principle of correspondence.

> I react immediately to someone else's behaviour. I presuppose the *inner* in so far as I presuppose a *human being* (Wittgenstein 1992: 84e).

Looking at matters in this light we can make sense of Wittgenstein's frequently misinterpreted remark that, "Only of what behaves like a human being can one say that it has pains" (Wittgenstein 1953: §283). For this is not, as McGinn misconstrues it, an endorsement of any form of behaviourism. He reads it as

suggesting that, "A non-living thing might....in principle qualify for the ascription of consciousness, so long as it behaved like a living conscious thing, for example ourselves....I conclude, then, that being biologically alive is not a necessary condition of consciousness" (McGinn 1991: 206). But consider that Wittgenstein also writes:

> How would a person act who doesn't believe that someone else feels pain? We can imagine how. He would treat him as something lifeless, or as many treat those animals that least resemble humans. (Jellyfish, for instance.) (Wittgenstein 1982: §238).

> Our attitude to what is alive and what is dead, is not the same. All our reactions are different (Wittgenstein 1953: §284).

I will say more about Wittgenstein's views on these matters in chapter four, section 3.2.1. For the moment I simply want to stress that they are consistent with the claim that simulation is a primitive, nonconceptual activity. For the main point is that, however it is explained, our capacity for basic simulation is one amongst several necessary platforms for conceptual development. It underpins our capacity for shared attentional focus and thus, in turn, allows for the possibility of primitive cases of triangulation.

3.3. The Nonsensicality of Behavioural Meaning

With this analysis in hand we are in a better position to see why we must recognise the existence of inexpressible, nonconceptual experiences. In order to make this case it is important to be clear about the options. Consider the question: Do non-verbals have experiences? There are two ways to respond to this if we suppose that to lack language is to lack concepts. We might simply say no because we deny the coherency of the notion of nonconceptual experience. Or we may think that non-verbals do experience things, but they don't know that they do. I endorse the second answer. This amounts to the claim that there can be experiences even if the subject lacks the appropriate concepts and even if the subject has no conceptual access to such experiences whatsoever (cf. Davies and Humphreys 1993: 12–13). But many philosophers, not just Davidsonians, are deeply suspicious of this kind of reply. Consider Weiskrantz's claim that the ability to produce commentaries is the *sine qua non* for conscious awareness (Weiskrantz 1997: 72). Surely, if we take this perspective, the very idea of inaccessible experiences is incoherent. Philosophers, who in other respects have very different agendas, tend to agree about this. Consider McCulloch's claim that:

> What it is like, for me, goes with some of these states [beliefs and desires] since it is just the flavouring they pick up from perceptual judgements (McCulloch 1988: 17).

In accord with this general idea but in a very different way, Akins argues that all questions about experience boil down to questions about representation. Thus her strategy for dealing with Nagel's puzzle about what it is like to be a bat is to convert it into the question of whether or not bats have perspectives on things. She regards this as a question about whether they have, "...certain representational capacities, a *conception* of an objective world of particulars" (Akins 1993a: 155 emphasis mine, cf. also 146). Moreover she suggests that in order to answer this question, we must try to understand how they manage to navigate in the world. She marshals a fascinating array of informational and neurological knowledge in order to settle the issue. This is brilliantly summarised by her wing-flapper scenario in which we are invited to imagine ourselves at the helm of a bat, driving it from the interior. The thought-experiment is meant to reveal how easily this can be done by making responses to a simple series of lights and by pressing a few control switches. She summaries the situation, as follows:

> There are, of course, no lights and dials in the frontal cortex of the bat. Nor is there a bat homunculus, the wingflapper, who reads the instruments and sends out the appropriate motor commands. Still the story makes for an useful fiction because it makes vivid one essential point, namely just how small the gap between the bat's sonar input and motor output might be...(Akins 1993a: 148).

From this analysis she concludes that, "...the sonar system of the bat is probably not concerned with the representation of three-dimensional objective particulars. But if this is true, it makes little sense to attribute *to the bat* a phenomenal point of view..." (Akins 1993a: 151). It is revealing, however, that she freely admits that there is little to be gleaned from the informational and neurological evidence about how conceptual points of view might actually be formed in those who have them. Hence her purpose in appealing to such evidence was meant to serve the wholly negative purpose of getting us to see that there is no point worrying about how creatures like bats conceive of or represent the world. On this ground she concludes that there is no point in worrying about what it is like to be a bat.[20] And, anticipating that this manoeuvre might leave us cold, she adds that, "If it is a question of a 'purely qualitative' phenomenology – about conscious but non-intentional experience – I am not sure that we have even a vague conception of what this might mean" (Akins 1993a: 151, cf. also 146).

Ironically, if I am right, Akins' analysis inadvertently highlights the very reason why we must postulate the existence of such 'purely qualitative phenomena', whether our conception of them is vague or not. This is because, as described above, the conditions for developing a conceptual point of view are, minimally, as follows:

(a) Subjects must be directed at common objects or features of the world

(b) Subjects must have similar experiences of these objects or features

(c) Subjects must recognise the commonality of response in each other

Consequently it is no accident that the study of neurology and information processing systems, while important in many ways, is of no use in helping us to positively understand the key aspects of conceptual development (cf. Hutto 1999c: ch. 7). And it is precisely when we try to identify the key aspects of such development that the postulation of nonconceptual experience becomes crucial. Experience is a major platform for conceptual development. I made a structurally similar case when discussing the question of intentionality in chapters four and five of *The Presence of Mind*. I now want to consider its form relative to experience. The form of argument I have been advancing relies on an acceptance of Bermúdez's Acquisition Constraint which states:

> If a given cognitive capacity is psychologically real, then there must be an explanation of how it is possible for an individual in the normal course of human development to acquire that cognitive capacity (Bermúdez 1998: 19).

By appeal to this constraint, if we suppose that the concepts of experience are not innate or *a priori*, then nonconceptual capacities must exist to enable us to acquire concepts. Consideration of the links between simulation, triangulation and the learning of concepts gives us ground for thinking that, at least with respect to learning experiential concepts, human beings must have specific prior capacities involving the relevant nonconceptual experiences. In contrast, mere informational sensitivity, no matter how complex, is insufficient to ground this kind of concept learning. And if we think that more advanced concepts are acquired on the back of these, then it follows that experience is vital for learning any concepts at all. To get the focus right, we might ask: Could a fully blindsighted child ever learn colour concepts, given that it would lack the relevant nonconceptual experiences? Without the ability to see, in the experiential sense, it could never learn to *see as*. At best, in some bizarre logically possible world, it might learn to make the right noises in the appropriate circumstances. But what would be causing it to utter these sounds? Not, *ex hypothesi*, its experience of the world. It is possible to be

intentionally directed at something and informationally sensitive to it without having any experience of it. Yet it is not imaginable that something bereft of all forms of experience could really learn and use language, whatever the appearances may suggest.

It may help to consider this question in the light of an even more fanciful case. In advancing the debate about the possibility of zombies, Todd Moody raised the question of whether or not merely informationally sensitive beings could evolve a language. He supposed himself to imagine a zombie populated Earth whose inhabitants speak a form of zombie-English. With respect to most ordinary and scientific discourses he saw no deep problem in making this supposition; but with respect to certain reflective and imaginative discourses he suggests that cracks begin to appear. On the basis of this thought experiment he concluded that, "Their discourse would have gaps in it (from our perspective), and concepts from our discourse (philosophical and imaginative) would be permanently untranslatable into theirs....at the level of culture there are necessary behavioural differences between zombies and non-zombies..." (Moody 1994: 199).

But, as several authors have noted, Moody's thought-experiment violates a stipulated condition of zombiehood because it does not respect the idea that proper zombies are genuinely indistinguishable from conscious beings. This is beside the point, but for our purposes we might call his creatures Moody-zombies, or if this sounds too much like an oxymoron we could call them mombies after the fashion of Güzeldere. And, despite their philosophical oddity, mombies are, "...perfectly respectable constructs" (Güzeldere 1995: 331). What interests me about them is that in a misguided attempt to answer Moody's claims about proper zombies, Flanagan and Polger ask us to:

> ...consider this possibility: In the beginning, informationally-sensitive [m]ombies who detect (but don't experience) trees on [M]ombie Earth also notice that compatriot [m]ombies sometimes bump into trees. Observation of this regularity leads to the invention of a warning locution such as 'Watch out!' whose normal social function is to get [m]ombies to turn around so that their photoreceptors receive the relevant message and dispose them to re-orient their motion. They start calling having one's photoreceptors oriented in the right direction 'seeing'. To be sure, it is seeing^{Z}, the non-conscious counterpart to our seeing (Flanagan and Polger 1995: 316).

Beneath this thought experiment lurks the idea that it is possible to imagine that, "...Mombies are species whose language consists of terms that only have 'behavioural meaning'..." (Güzeldere 1995: 331). But what is behavioural meaning? What are we tempted to imagine? I suspect it would be akin to the kind

of unfeeling state of mind which Frodo relates to Sam in *The Lord of the Rings* as they near the heart of Mordor. For when asked about his fading memories he says:

> At least, I know that such things happened, but I cannot see them. No taste of food, no feel of water, no sound of wind, no memory of tree or grass or flower, no image of moon or star are left to me. I am naked in the dark... (Tolkien *The Return of the King*: 973).

In the context of a fantasy novel this has an obvious literary effect; but can we make philosophical sense of Frodo's apparent claim that he can form 'no image of moon or star'? How can he be really describing or remembering that which he cannot imagine? There is a deep-seated confusion here – for when we talk of behavioural meaning, we are talking nonsense.

In a similar vein, despite having distinguished my understanding of experience from McDowell's, I agree with his claim that without experience, our non-logical judgements would be empty. Or to put this more precisely, there simply wouldn't be any such judgements. Consider Rorty's apparent repudiation of this claim. He writes:

> Davidson, Sellars, and Brandom have no use for this contrast between uses of words that have content and those that do not. As good inferentialists and panrelationalists, they think all a concept needs to have content is for the word to function as a node in a pattern of inferences (Rorty 1998b: 149, cf. also Hanfling 1991: 29–30).

But we must be extremely careful here. Notoriously, 'inferences' as the word appears in the last line of Rorty's quotation, can be read thinly or thickly. This roughly marks the difference between readings licensed by functional or procedural role semantics and those licensed by non-reductive conceptual role semantics (cf. Hutto 1999c: ch. 2, §2.2) But it is only if 'inferences' are read in the latter way that they are meaningful. For example, consider the way in which Davidson appeals to the principle of correspondence when he deals with the problem of logical truth. The problem arises because if we only rely on T-theories that match the logical and inferential patterns of a subject's speech acts, we will have not done enough to specify the meaningful contents of those utterances. This is because for any proposed T-theory we could produce a logically consistent variant by adding a formal truth to its axioms. Davidson avoids this problem by claiming that unless there is an independent reason for thinking that subjects did make such an addition to all their thoughts, we should initially prefer T-theories that interpret them as making assertions about things that we would likely be speaking about, if we were in their shoes (see Hutto 1999c: ch. 5 §3.2., §4.2).

On a thin reading of 'inference', we have no means of dealing with this problem. This is why we must distinguish between thick and thin versions of inferentialism.

Noting this is vital because it is Rorty's equivocation over the nature of inference that leads him, like McCulloch and Akins, to deny altogether the existence of qualitative experience to the extent that these are equated with a kind of nonlinguistic awareness. Consider that, for Rorty, there is no interesting question about whether or not computers really have beliefs and desires (cf. Rorty 1998a: 126–127). But how can this be? For, as the problem of logical truth shows, even if a computers were to perfectly mimic the logical patterns of my inferences, this would not be sufficient reason to think that its inferential liaisons were meaningful. Would it matter then if we put this system into a robotic body and also supposed that it could also perfectly mimic my behavioural patterns of response? Would that then be enough? No. Not unless triangulation was genuinely possible. But *ex hypothesi*, it would not be. For, not only would the robot lack a reciprocal capacity to recognise the character of my responses – other than perhaps registering, in some non-simulative way, that I responded to this or that – there is every reason to suppose that its responses would be dissimilar to mine across so many parameters as to be incomparable (cf. Cherry 1991: 19). And if we do not respond alike, there will be no question of agreement in basic cases.

In this light the verdict is clear. Even in principle, mombies and their ilk would need more than informational sensitivity in order to develop a language. In the end, they must get by on appearances alone. As we shall see in chapter three, section two, this conclusion has a palpable impact on concerns about abstract functionalism and 'as if' consciousness.

4. Conclusion

Having now made a case for recognition of the existence of nonconceptual experience, I must now focus on two follow-up questions. Firstly: What are the consequences of this recognition for the prospect of developing a theory of consciousness? Secondly: How should we understand the nature of such nonconceptual experience? Is it to be understood in sensational rather than representational terms? I address both of these questions in detail in the next chapter.

CHAPTER TWO

From a Sensational Point of View

"...Every realm of nature is marvellous....we should venture to study every kind of animal without distaste; for each and all will reveal to us something natural and something beautiful....if any person thinks the examination of the rest of the animal kingdom an unworthy task, he must hold in like disesteem the study of man"

- Aristotle, *De Partibus Animalium,* I $645^{a}6–8$

1. Introduction

In this chapter I consider some of the consequences of the thesis that experience is, at bottom, nonconceptual in character. In section two I specify in what respect and to what extent this makes experience theory-resistant. I discuss both Nagel's thought experiments and Jackson's knowledge argument and conclude, along with the defenders of physicalism, that these only pose a threat to the development of a theory of the qualitative character of consciousness, as opposed to its metaphysical nature. This sets the stage for considering the different metaphysical theories on offer, which is the focus of the next chapter. However, before turning to that task, I argue in section three that experiential content cannot be identified with representational content, not even when the latter is understood as being nonconceptual. The major reason why such an identification is not on the cards has to do with the fact that experience is subjective. This is an important prelude because once we distinguish experience from intentionality, we will be in position to understand why its subjective nature foils attempts to intelligibly explain the place of consciousness in the material world.

2. Is Experience Theory-Resistant?

We may legitimately wonder how the analysis of the preceding chapter impacts on the possibility of developing a theory of consciousness. In particular, it might be thought that if experience is essentially nonconceptual, then it is necessarily theory-resistant. For it might be supposed that if a certain kind of phenomenon is not, in itself, theoretical or conceptual in nature, then no theory could give us an insight into its nature. Thus the situation with respect to consciousness can be contrasted with commonsense psychology. For it is at least arguable that the concepts of beliefs and desires form a central part of an explanatory network that ought to be thought of as theoretical in nature (cf. Hutto 1999c: ch. 1). But no one seriously advances a theory-theory about experience. Nevertheless it is at least partly confused to think that this provides a reason for holding that the development of a theory of consciousness is not on the cards. For we have theories about lots of things which we don't suppose are by their very nature theoretical or conceptual. For example, we have quantum mechanical theories, as opposed to theory-theories, about the nature of atoms. In this light it is fair for the physicalist to retort that, "...a theory of consciousness is not, primarily, a theory of the *concept* of consciousness. It is, rather, a theory about the worldly *property* which mental states possess when they are conscious" (Carruthers 1996: 147, cf. A.D. Smith 1993: 227).

Yet there is a genuine sense in which experience is theory-resistant because of its non-theoretical nature. To understand why this is so it is necessary to consider Nagel's claim that there is something-that-it-is-like to have an experience which cannot be captured in any other way than by actually having it. But it is important to distinguish two different readings of the claim that third-personal theories leave out what-it-is-like. As Levine has noted, there are metaphysical and epistemological versions of this claim (cf. Levine 1993: 121). These are often conflated to no good end. In what follows I only argue in favour of the epistemological, or as I prefer to call it, the *Verstehen* version. This formulation emphasises the fact that we can only understand the character of experience, "...from the inside, through empathy and imaginative projection" (Biro 1993: 193).

2.1. The Verstehen Version of the What-it-is-Like Argument

We can make good sense of the *Verstehen* version of the what-it-is-like argument if we consider the difficulties involved in understanding the conscious lives of creatures whose minds we cannot simulate. Can we be sure what they are responding to? Can we know what-it-is-like for them to so respond? Indeed can we be certain that they are experiencing anything at all? Clearly, in such cases, the

game is quite different than it is with our fellow human beings. This is because non-human creatures simply are not of our ilk; hence they share no experiences in common with us. Because of this we have no means of triangulating with them.

Could we develop a theory of consciousness that would help us in this domain? No. In his classic example, Nagel asks us to consider the conscious experience of a bat.[21] He claims that in order to fully understand what-it-is-like to be a bat we would need to do much more than simply give a description of its moth-chasing behaviour, its physio-chemical make-up, or even the inputs and outputs of the causal-informational mechanisms that underpin its capacity for echolocation. None of these forms of description provide any insight into the fundamentally inexpressible *way of being* in the world that the bat allegedly enjoys. As a consequence of this *Gendankenexperiment,* Nagel concludes that there are clearly facts about ourselves and our animal neighbours which are not susceptible to objective analysis – therefore behaviourism, functionalism and indeed any form of physicalism are, and always will be, inadequate as means of understanding experience. The major upshot of this is that Nagel forces us to confront the question: How can we tell if a non-human creature is conscious? How can we know what its experiences are like if it doesn't speak?[22] His analysis bids us to anticipate, not only that creatures experience the world nonconceptually, but that they may be aware of or directed at different aspects of the world which are invisible to us. Thus they may experience the same things differently due to their alien sensory apparatus.

A similar problem is revealed if we consider a recent move in the venerable debate over the possibility of inverted colour spectra. In these thought-experiments we are asked to imagine two subjects which are functionally equivalent in the performance of a given recognition-based task, say, the sorting of red socks from blue socks. It is then supposed that one subject sees red–as–blue while the other sees red–as–red without this making any difference to their outward performance in the sock sorting task. The idea is that the qualitative aspects of experiences might vary arbitrarily relative to their putative causal roles. In this respect, the very possibility of inverted spectra cases is supposed to provide a stick with which to beat functionalists. As Lycan says, "Two organisms might well share the same functional organization and all the machine programs and still have visual colour spectra inverted relative to each other..." (Lycan 1987: 24). For this reason philosophers debate whether or not the fact that we can imagine cases of inverted spectra entitles us to conclude that they are genuine possibilities.

Hardin has argued that what we know about the underlying neurological structure of visual processing shows that inverted spectra cases are not in fact real possibilities (cf. Hardin 1988, Levine 1991). Assuming the truth of the current received view of how colour processing works, he points out that there would always be tell-tale physiological and functional differences in the way different

colours are perceived. Hardcastle has responded to this by suggesting that the neurological results are not yet in with respect to visual perception in a way that would entitle us to foreclose on the possibility of inverted spectra (cf. Hardcastle 1995: 40). I do not want to enter into this debate here. Rather I want to point out that even if Hardin were right the defenders of inverted spectra would still have an interesting line of reply open to them. Hardcastle describes it and the consequence of advancing it.

> The 'flavor' of [X]'s color perception could differ from ours along with his internal wiring. If this were the case then Hardin suggests that the best we could say is that Henry's phenomenal experiences are *unimaginable* from our point of view, not that they are inverted (Hardcastle 1995: 30, emphasis original),

The point is that if Hardin were right, then the problem of inverted spectra either vanishes or collapses into the problem about how we are able to understand the experiences of others and on what grounds we ascribe them.

A word of caution is in order at this point. In accepting that others have or may have experiences different from our own, we need not endorse a purely introspectionist or solipsistic account of consciousness. Indeed it is because ascriptions of conscious life are not logically private that we, like Nagel, can be so confident that consciousness is a, "...widespread phenomena....which occurs at many levels in animal life" (Nagel 1979: 166, cf. Biro 1993: 183). Nor should endorsing this view invite a creeping scepticism about other minds. It simply serves to remind us that, "...our concepts of consciousness....are constrained by our own form of consciousness" (McGinn 1991: 9, Dennett 1997: 4-5).[23] The fact is that what-it-is-like to be a bat is unbridgeablely distant from what-it-is-like to be a human. Even if we can appreciate and understand what-it-is-like to experience nonconceptually in some general sense, there are clear limits to what we can know about the quality of the specific experiences of many other, presumably conscious, animals. Our problem in understanding the character of some other minds is barred because of the differences in our makeup. We cannot successfully simulate what-it-is-like to be them because we are not like them. For this reason, understanding the experiential lives of animals is not a puzzle which the intellect alone can solve (cf. Wittgenstein 1980b: §659–663 cf. also §644).

As Wittgenstein suggests, "It is only in particular cases that the inner is hidden from me, and in those cases it is not hidden because it is the inner" (Wittgenstein 1992: 34e). Moreover he says, "Those cases in which the inner is hidden from me are very *peculiar*. And the uncertainty which is expressed in this is not a philosophical one; no it is practical and primitive" (Wittgenstein 1980b: §558) It is practical and primitive because it is generated by the instinctive reactions we have

to the situation of others (or, in some cases, a lack of trust in the sincerity of their reactions). It is not because they have failed to measure up to some list of behavioural or functional pre-requisites for being in this or that conscious state. This is the same kind of primitive uncertainty that we are faced with when we wonder about the consciousness of animals. Of this he writes,

> Think about the uncertainly about whether animals, particularly lower animals, such as flies, feel pain. The uncertainty whether a fly feels pain is philosophical; but couldn't it also be instinctive? And how would that come out? Indeed, aren't we really uncertain in our behaviour towards animals? One doesn't know: Is he being cruel or not? (Wittgenstein 1980b: §659).

This is not a problem that can be solved, nor will it go away. Wittgenstein makes this point by contrasting our use of symptoms and criteria. If we accept his advice, we no longer have the problem of devising some neat correlation such that everywhere that X goes, consciousness is sure to follow. For example, taking this line allows us to avoid Chalmers' awkward speculation and *ad hoc* attempts to provide a criterion based on, "...the double life of information" (see Chalmers 1996: 284–286, 293-301). He claims, "We need some sort of construct to make the link between...[the phenomenal and the physical], and information seems as good a construct as any" (Chalmers 1996: 286). Under the auspices of this view he claims, "...there is probably experience everywhere: wherever there is a causal interaction, there is information, and wherever there is information there is experience" (Chalmers 1996: 297). With this thought in hand he is driven to consider the kinds of entities which meet the informational criterion for consciousness ascription. Even though they differ in their relative informational complexity, his list includes dogs, mice, lizards, fish, slugs and even the humble thermostat. Thus he bravely tells us, "Someone who finds it crazy to suppose that a thermostat might have experiences at least owes us an account of why it is crazy" (Chalmers 1996: 295). Yet even he wants to draw the line at rocks and certain other more complex systems such as CD-players and stomachs. He introduces a number of *ad hoc* suggestions to secure this, such as the idea that there may be proto-experiences and that information may need to be available for global control in order to entail experience. But we need not go into any further detail to see the point.

My purpose is not to embarrass Chalmers but to get us to realise that, when faced with the question of whether or not another being is conscious, we do not, and cannot, settle the issue by appeal to reasoning, criteria, theories or the like. *A fortiori* he is wrong to say, "It is arguable that the reasoning [involved in ascribing experience to a thermostat]....is just an extension of the reasoning whereby we attribute experience to dogs or mice" (Chalmers 1996: 295). We do not ascribe

consciousness to dogs or mice on reasoned grounds. Given this, the onus is not on his opponents to *argue* why thermostats are not conscious.

2.2. The Failings of the Knowledge Argument

One way of reading Nagel's claim is to take it as suggesting that experience, at least in its basic forms, is nonconceptual and that this explains why it is beyond analysis. If we focus on the issue of expressibility, this reading of Nagel's position becomes trivially true. Thus consider his remark that:

> Reflection on what it is like to be a bat seems to lead us, therefore, to the conclusion that there are facts that do not consist *in the truth of propositions expressible in a human language* (Nagel 1979: 171).

This way of approaching matters offers an interesting vantage on Jackson's notorious knowledge argument against physicalism. He developed a thought experiment which featured Mary, a super-scientist, who knows all the physical facts that can be known. Yet Mary has been confined from birth in a black-and-white environment and has only had access to the world *via* the black and white media of television monitors. For this reason, according to Jackson, her collection of worldly facts is incomplete. Specifically she lacks knowledge of certain facts relating to colour experience. She does not know what it is like for others to experience colours and this is not something that she can learn without being released from her monochrome prison (cf. Jackson 1990, Tye 1996: 172).[24] The point is that if Mary is missing out on some facts, then so is physicalism. Therefore, metaphysically speaking, physicalism is incomplete. Eschewing eliminativism about experiences and confessing to be a *qualia freak*, Jackson concludes that if he were told everything that there was to be told from a physical point of view, he would not have been told everything that there was to have been told. Thus a complete physical and functional description of our sense organs and the kinds of worldly things that stimulate them fail to capture or mention such mundane sensational experiences such as the smell–of–a–rose (Jackson 1990: 469).

The standard complaint about the knowledge argument is that Jackson equivocates in his use of know. Thus all its persuasive force is gained in an illegitimate way. Churchland makes this formal complaint in the following way:

(1) $(x)\ [(Hx\ \&\ Px) \supset Kmx]$
(2) $(\exists x)\ [Hx\ \&\ {\sim}Kmx]$ (viz 'what it is like to see red')
(3) $\therefore\ (\exists x)\ [Hx\ \&\ {\sim}Px]$

> Here m = Mary; $Kyx = y$ knows about x; $Hx = x$ is about persons; $Px = x$ is about something physical in character, and x ranges over 'knowables' generously construed so as not to beg any questions about whether they are propositional or otherwise in nature (Churchland 1989: 67–68, cf. also 1995: 201-202, Lockwood 1989: 132).

Set out in this way, the knowledge argument is invalid. For in evaluating it the only way it can result in a true conclusion is if we conflate the two senses of knowing about that appear in premises (1) and (2). That is to say, the argument is only cogent because it fails to distinguish knowledge by acquaintance from knowledge by description. But knowing what-it-is-like to have an experience by acquaintance is not equivalent to knowing facts, scientific or otherwise, by description. The same analysis would apply to Nagel's discussion if we reconstructed it in the form of a serious argument (cf. Hill 1991: 90).

2.2.1. Know how = Experience and Ability

Given this we might be encouraged to endorse what Nemirow and Lewis variously call 'the ability equation' or 'the ability hypothesis'. Its essential idea is captured by Lewis:

> The Ability Hypothesis says that knowing what an experience is like just is the possession of the abilities to remember, imagine, and recognise. It isn't possession of any kind of information, ordinary or peculiar....It isn't knowing that. It's knowing how (Lewis 1990: 516, cf. also Nemirow 1990: 493).

On this view, having the capacity to experience *red* equates to having the capacity to discriminate red things, to imagine red things, to recognise red things, and so on. A virtue of this approach is that, if we accept that the having of an experience is just the having of certain abilities, we can diagnose exactly where the knowledge argument goes wrong. Consider Dretske's remarks on this issue. He writes:

> There is one thing dogfish *can do* that Mary cannot do....Suppose a fish experience[d] an electric field pattern P. If these fish could think, this fish could think that *this* (referring to the experienced electric field) has pattern P. Mary cannot. *Not being aware of* any electric field, Mary knows nothing that can be expressed in quite this form (Dretske 1995: 87, first and third emphases mine, cf. also Tye 1996: 142).

While I agree that the ability hypothesis provides something like the right analysis, it is only fully plausible if it is combined with an account of nonconceptual experience and more is said about how nonconceptual experience might serve as a *basis* or *ground* for such indexical and perceptual judgements. If nonconceptual experience is, borrowing Tye's terminology, *poised* for use in cognition, then we need to explain how this is so (Tye 1996: 137–138). Thus while I agree with Lewis and Nemirow that we ought to concentrate on abilities rather than knowledge, it is not adequate to simply equate experiences with abilities. The idea that experience can be reduced to a set of abilities, without further ado, is a bridge too far.

Lycan raises two pertinent objections to this idea. He calls these the 'argument from empiricist residue' and the 'argument from the best explanation of abilities' (cf. Lycan 1996: 96–98).[25] These arguments dovetail nicely. The first claims that those lacking the capacity to experience certain things would also be unable to recognise or imagine them. The force of this kind of counterfactual is difficult to deny. Nevertheless, Levin has tried to do so. She claims that this idea grips us because, "...of an implicit acceptance of an overly empiricistic view of the acquisition and individuation of concepts" (Levin 1990: 480). But we need not be suspicious of the argument from empiricist residue simply because of its chequered legacy. Specifically, one can acknowledge its truth without accepting the burden of an empiricist account of the construction of concepts from simple 'ideas'. This becomes clear if we consider the second argument.

In the light of my argument against the very idea of behavioural meaning, it would seem that the best explanation of at least some of our conceptual abilities, at least in part, is that we have particular discriminatory, recognitional and attentional, experential capacities. As I argued in chapter one, experience plays a vital role in triangulation and hence in making conceptual development possible in general. Does this require a revival of empiricism *per se*? No. For in order to accept this, we have but to recognise that experience does not require judgement. There can be experiences without any conceptual judgements or expressions, or even the capacity for such. Given this, if certain non-verbal creatures experience pain, there can be something-that-it-is-like for them to experience even if they will not be able to judge themselves to be in pain. In my view, it is possible for a creature to feel pain even if it cannot say what-it-is-like. This happens in our own case when we see something without noticing it or giving attention to it, as discussed in chapter one, section 2.2.

In all, to be fully credible the ability hypothesis needs to be supplemented with the recognition that experiences exist and that they matter. But this is not the end of the story. For there are various ways to highlight the connection between abilities and experience, without treating experience as nonconceptual or sensational. For example, Lycan's own predilection is to defend a notion of

phenomenal information, according to which experience is characterised as a traditional kind of representational content. But one might also make the case that the informational content of experience is not representational in the classical sense but is instead nonconceptual (see Evans 1982, Chrisley 1993, Clark 1997, cf. Hutto 1999c: ch. 4). Finally, one might abandon the very idea that experiential content is a form of informational or representational content, while still endorsing the modified ability hypothesis (Cussins 1992b: 655, 673, 683).[26] I argue that the first two options do not make for a workable account of experience, but I endorse the third.

2.3. The Virtues of the Knowledge Argument

With these caveats about the modified ability hypothesis in place, we are in a good position to assess the limited virtues of the knowledge argument. When we talk of what-it-is-like to have an experience we are gesturing at the qualitative features of the sensational, nonconceptual experiences that underpin certain abilities. Brinck gets matters exactly right when she claims:

> Nonconceptual content can, for instance, be specified in terms of the skills and capacities that an organism has in relation to a specific object or the actions that the subject performs in relation to that object. This kind of specification indirectly states how the object appears to the subject. Nonconceptual content therefore concerns what something is like to a certain being – not what that thing in fact is, nor how it would be described from a third-person perspective (Brinck 1997: 131).

This tallies with the conclusion reached by Nagel. In Nagel's eyes there is something–that–it–is–like for sentient beings to see colours, hear sounds, feel pains and, further, that these somethings or experiences are forever beyond the ken of the objective categories employed by physicalists and functionalists.[27] But the reason they are inaccessible to the third-personal perspective is not because subjects have access to a set of unusual facts. In asking what-it-is-like, we are not asking after facts which could be captured, conveyed or described by propositions of any kind. At best such descriptions can index experiences as in the cases in which we converse with our fellows – given the standard defeasible assumption that our conversants are like us. But if this is so, the physicalist cannot be chided for having failed to provide such factual statements. Consequently, the right conclusion is that, to the extent that Nagel or Jackson wish to argue that knowing–what–it–is–like to undergo an experience imparts a special kind of factual phenomenal knowledge, they are wrong. *A fortiori* there is no such knowledge. Talk of it is strictly nonsensical. Note that this is not to deny that I can say whether

or not I am in pain simply on the basis of having experiences. For Wittgenstein is right to think that because the immediacy of experience leaves no room for doubt, it also leaves no room for talk of knowing or coming to know (cf. Wittgenstein 1969: §41, 121–124, 178)

Yet, even with these concessions in place, the real focus of the Nagel-Jackson critique still has some punch. Their thought-experiments reveal that neither physicalists nor anyone else will be able to give an account of experience which captures its nature. No such account is possible. To chase after it is to be under the spell of *ignis fatuus* – foolish fire. While this does not establish that physicalism is flawed because it is factually incomplete, it does reveal its limits. To know-what-it-is-like for X, we must actually undergo the same kind of experiences as X (cf. Lockwood 1989: 132–133). This requires transformation, not knowledge *per se*. For this reason there is no grasping what-it-is-like in the case of those whose experiences we cannot simulate.

Dennett's reply is along the right lines. He claims that the, "...task [of understanding bat consciousness] would require us to subject ourselves to vast transformations...[but] we could use our research to say what these transformations would be" (Dennett 1991a: 442, 444). For instance, with reference to the case of the bat, he says our biological and ecological research would help by showing, "...us a great deal of what a bat could and could not be *conscious of* under various conditions" (Dennett 1991a: 444, emphasis mine). Indeed Akins' study, mentioned in the first chapter, does this admirably well (cf. Akins 1993a). But, even after having accumulated all such information, if the possibility of simulation is still barred, we would remain unable to achieve the necessary transformation. Consequently, even though it is wrong to talk of experience as imparting a special kind of knowledge, Nagel's conclusion still stands. He is right to think that there is an inexplicable residue after the process of seeing is fully characterised, functionally and neurologically speaking. This residue is the qualitative character of experience. This is important for it is this aspect of experience that makes consciousness irreducible to theory.[28]

But, so what? After all, why should theorists of consciousness be asked to tell us about the qualitative aspects of experiences? Theories generally tend to abstract away from qualities in their quest for underlying structures and causes. They are designed to chase after generalities, not particulars (cf. Biro 1993: 192–193, Hardcastle 1995: 12–13, 24–26, 40–41). Consequently, even if we accept the limitations imposed by the *Versteshen* reading of Nagel's claim, it is still *prima facie* possible to develop a theory of consciousness, in the metaphysical and explanatory sense. This would be a theory designed to tell us about the essential physical and causal nature of experiences. This would be achieved if we could isolate a class, or sub-class, of phenomena which would be identical to, or would serve as indices for, the class of conscious experiences. If this reducing class

already fits with our established ontology, then we would have, in the metaphysical sense, produced a theory of consciousness. That this is a sensible occupation is the pretext for advocating representational, functional, neurological and quantum mechanical theories of consciousness. Even more weakly, in the absence of such a reducing theory, we might still incorporate consciousness into our wider metaphysics by advancing a non-explanatory token physicalism according to which, "...every mental state (including every qualitative experience), whatever (if anything) it is like to be in it, is identical with some physical state" (Biro 1993: 189). Both of these strategies have severe presuppositional problems which will be the focus of the next two chapters. But proponents of physicalism would be right to claim that if conscious experience is theory-resistant with respect to the metaphysical project, this is not in itself because it has a qualitative, nonconceptual aspect which cannot always be simulated, described or otherwise known.

3. Rejecting the Strong Representationalist Thesis

As I suggested at the outset of chapter one, it is possible to accept that experience is essentially nonconceptual and yet deny that it has a sensational character. Indeed it is often claimed that if experience is shown to be essentially representational, even if nonconceptually so, this would provide a basis for a positive theory of consciousness. For example, Dretske and Tye both claim that experience is, at bottom, nonconceptual but at the same time they are also allied in advocating a strong version of the representationalist thesis (Tye 1996: 137–139, cf. also 102–104, 128, Dretske 1995: 9–12). According to them, "...phenomenal conscious states are *essentially* representational states of a certain sort" (Tye 1996: 66, emphasis mine, cf. also Tye 1996: 151, Dretske 1995: 1). This claim lends support to philosophers, such as Lycan, who, upon endorsing it, see the naturalisation of representational content as the only remaining problem for the philosophy of mind.[29] I deny the identity claim embedded in the strong representational thesis on the grounds that it cannot do justice to the subjective character of experience. In order to see why, it is useful to consider what I take to be the most promising version of the strong representationalist thesis. For only when it is clear what a representationalist approach demands and can deliver, will we be in a position to see why we must distinguish experience and intentionality. This analysis serves as an useful prelude to my diagnosis of the fatal difficulties of explanatory physicalism, which begins in earnest in the next chapter and culminates in chapter four.

3.1. The Rejection of Standard Representational Theories

Both Dretske's and Tye's representational accounts suffer, in different ways, from inadequacies inherent in their theories of representation. Tye endorses a causal-computational account of representation, whereas Dretske advances a much more developed teleofunctional account which is separate from, but connected to, his account of information-theoretic content (cf. Tye 1996: 100–101, Dretske 1995: 4–7, 1981, 1988). Although I will not elaborate on them here, both of these approaches are riddled with internal difficulties of various kinds. In one way or another they face a suite of problems standardly travelling under the following aliases: the problem of distality, the problem of misrepresentation and the problem of transitivity. To the extent that Dretske squarely attempts to address the issue of normativity, by appealing to the notion of indicator functions, his account is preferable to Tye's because it appears to have the means of answering some, but not all of these problems. Nevertheless, his positive account has serious difficulties of its own since he has no principled means of bringing together his informational theory of content with his teleofunctional account when it comes to saying which determines representational content. I have discussed these issues in detail elsewhere (see Hutto 1999c: ch.2). But the essential problem with both these approaches is best exposed by considering Millikan's superior biosemantic approach.

In common with some of Dretske's remarks, Millikan claims that it is possible to develop a naturalistic theory of representational content by appeal to a principled notion of biological function. But what crucially divorces her project from his teleofunctionalism is that she makes no attempt to reduce her notion of biological function to that of an indicator function. In this way she circumvents the problem of grafting her theory of representational content onto a pre-given information-theoretic account of content. Instead she focuses on proper functions as opposed to mechano-functions when it comes to saying what determines content. She advances a need-driven, benefit-based account according to which content must be explicated with reference to the responses of an organism's consumer device as it is supposed to operate in normal conditions. It is this focus on the dynamics of representational consumption which crucially separates her approach from that offered by advocates of informational and causal theories.

Crucial to her account is the idea that normal conditions must be defined by appeal to normal explanations which, "...explain the performance of a particular function, telling how it was (typically) historically performed on those (perhaps rare) occasions when it was properly performed" (Millikan 1993: 86). In this way, normal explanations enable us to pin down the idea of proper performance because they index the historical conditions in which a given biological response originally conferred the benefits that brought about its selection. Appeal to these conditions

therefore enables us to explain why a device or response proliferated and this enables us to say what it is supposed to be doing.[30]

The basic ingredients of Millikan's account are neatly illustrated by her paradigm example of a simple intentional icon: the bee dance.[31] Such dances are meant to generate an appropriate response in a co-operating consumer mechanism or mechanisms; the watching bee or bees. In this case, the response is a patterned flight path which ought to take the bee(s) to the location of nectar. A bee dance, like other intentional icons, has both indicative and imperative aspects. If the relational conditions for this characteristic type of dance are historically normal, then it will successfully map the location of nectar and this can be explicated by some mathematically describable projection rule. This is the icon's indicative aspect. If all is well on this front, then the consumer mechanism(s) ought to produce the appropriate, adapted response of taking the bee(s) to the nectar, thereby fulfilling the icon's imperative aspect (cf. Millikan 1984: 99).

We can see from this case alone that in order to rightly understand intentional icons, it is necessary to focus on their direct proper functions, as revealed by their imperative aspects. This requires special focus on the icon consumer. But, as I said, this is in complete contrast to the tack taken by other theorists. For, as Millikan states:

> ...intentional icons do not, as such or in general, carry 'natural information'. Nor do they'covary' with or 'track' what they icon. Their definition makes no reference to how likely or unlikely they are actually to correspond to their designated environmental features, nor how likely these features are to get mapped by them (Millikan 1993: 107).

The reason causal and informational accounts are flawed is because, at base, they hope to clarify the notion of representation wholly in terms of some kind of indicative relation between the representation and the represented, without mentioning, let alone giving due care and attention to, the role played by the consumers of representations. It is precisely by correcting this oversight, and attending to the dynamics of the producer-consumer-world relationship, that Millikan avoids the aforementioned trio of problems which spell doom for other naturalised theories of content. I have elsewhere defended these claims in greater detail, but here I simply want to emphasise that giving attention to the representational consumer is of paramount importance when it comes to understanding intentionality (see Hutto 1999c ch. 2–3).

3.1.1. The Best of Intentionality

These general concerns about representation ought to lead us to favour a biosemantic approach over the theories offered by Dretske and Tye. Yet there are

other *prima facie* reasons for thinking that a modest biosemantic theory of nonconceptual content holds promise for defending the strong representational thesis about experience. I will only sketch some of these reasons here since I intend to show that, despite its seeming attractions, the biosemantic approach cannot rescue the strong representational theory of experience.

To see its apparent virtues clearly, we might first consider Tye's version of the representationalist claim. He writes:

> Experiences nonconceptually represent that there is *a* surface or *an* internal region having so-and-so features at such-and-such locations, and thereby they acquire their phenomenal character (Tye 1996: 139).

Advocates of this formulation are immediately confronted with the messy problem of making good on objectivism about the so-called secondary properties. This is because, according to Tye, representation is essentially a matter of tracking or being causally sensitive to specific worldly features (see Tye 1996: 144–150). But if this is right, we are entitled to ask: Which worldly features do our experiences represent? Consider the case of colours. Most philosophers, particularly physicalists, do not believe that there are any worldly features to which colours correspond. This is because it is generally acknowledged that our experience of colour depends both on the character of our internal processes as well as response to specific external stimuli. To begin with, the colours and shades we see are in part determined by the ratio of activation across three light-sensitive cones in our retinas. This fact alone tells against the idea that there is any unique activity of particular cones correlated to characteristic wavelengths with which we might identify specific colours. Moreover, the initial, distributed response of these cones effects changes in the retinal ganglion and from there further processing occurs in two separate chromatic channels, known as the red-green and the blue-yellow. The interaction between these two channels underpins our chromatic experience in a way that makes the classification of hue perception a fourfold business. Technically speaking, colours classified by appeal to these kinds of activity are called metamers. The problem for advocates of colour externalism is that if what constitutes our colour experience depends on internal factors of this kind, then there is no way to isomorphically correlate colours with any unique, independent, external features of the world such as particular wavelengths of light or spectral reflectances (cf. Hardin 1990: 560–562, 564–566, Hardcastle 1995: 27–29, Dretske 1995: 89). After considering these two standard options, Hardin offers the following summary.

> The reflectivist theory, like the wavelength theory, suffers from an irremediable underdetermination: too many of the mechanisms essential to the production of the colors we see lie within the body of per-

> ceivers....Physical objects need not have colors of their own, in some special manner, in order to look colored (Hardin 1990: 566).

The point is that there are no interesting, independent features of the world which can be neatly identified with the various colours we experience. If this is right, we must ask: Which independent, external features of the environment are we tracking or representing during colour experience? Since there seems to be no principled answer to this question, and since the problem generalises, there are *prima facie* advantages if the strong representational thesis is re-formulated under the auspices of a biosemantic theory. In this guise the thesis can be converted into the claim that:

> Experiences nonconceptually direct organisms of type O towards specific surfaces or internal regions because in Normal conditions doing so produced effects or responses that helped ancestors of such organisms to proliferate.

A natural way to read this claim is to treat it as suggesting that experiences are kinds of creature-relative responses directed at aspects of the world that afford certain possibilities to particular organisms. For example, Rowlands has explicitly appealed to this idea in his characterisation of biosemantics. Following Gibson, he defines affordances as:

> ...relational properties of things; they have to be specified relative to the creature in question....Thus, the surface of a lake affords neither support nor easy locomotion for a horse, but it offers both of these things for a water bug. To speak of an affordance is to speak elliptically; an affordance exists only in relation to particular organisms (Rowlands 1997: 287, cf. also Bermúdez 1998: 112–114).

An immediate benefit of taking this line is that it suggests an answer to the question: Why are there experiences at all? For if experiences are understood as a kind of response to affordances then the explanation of their origins could, in principle, be given by alluding to the advantages they conferred in the historical environments in which these responses were originally selected (Dretske 1995: 89, 90 91–93). This point holds generally, but in light of the discussion above it is interesting to consider Dennett's speculations about the possible origin of colour experience. He writes:

> Some things in nature 'needed to be seen' and others needed to see them, so a system evolved that tended to minimize the task for the latter by highlighting the salience of the former. Consider the insects. Their color

> vision coevolved with the colors of the plants they pollinated, a good trick of design that benefited both (Dennett 1991a: 377, cf. also 378, 381).

This idea is made even more plausible if grafted onto something like Akins' account of the nature of sense perception. Although she does not talk of experiences *per se*, Akins challenges the traditional view that the function of the senses is to tell us truly about the world. In her bid to replace this view with a more narcissistic account, she claims that:

> ...despite the entirely rule-governed nature of sensory systems, the question 'What is the system detecting?' may not be apt. Rather the appropriate question for any sensory system, is 'What is the system doing'? and by this we mean doing for the organism (Akins 1996: 352).

If something like this can be made to work, it would provide an useful means of dealing with Chalmers' explanatory version of the hard problem, which was mentioned briefly in the introduction. In fact, in order to respond to his worry I will canvass a version of the biopsychological approach, which is not wedded to the strong representational thesis, in section 2 of the next chapter.

This points to yet another reason to favour biosemantics over causal theories of representation in this domain. For the former provides a principled account of normal conditions which allows us to side-step the traditional difficulties faced by causal theorists when it comes to specifying the right conditions for representing. For if experiences are a form of representation, then they must be caused, in the right way, by specific worldly features when they are representing things aright. Thus we are entitled to ask: Under which conditions are representational experiences rightly caused? Under which conditions do they misrepresent? Notoriously, causal theorists have difficulty in answering such questions in a non-vacuous way. This is because they cannot account for anything more than mere statistical norms without violating naturalism.

However, by turning to biosemantics we can rely on our best explanation of the evolutionary origins of experiences in order to provide a solid sense of normal conditions. But, not only does this provide a principled ground for the notion of 'normal', it also allows us to remain silent on whether or not an experience is in fact performing its historically conceived proper function under any given set of current conditions. In principle, to decide this we would have to determine whether or not the current conditions matched those which actually advantaged our ancestors when these responses were first selected. My bet is that in most cases there would be no such match. Most of the time we traverse very different environments than those of our evolutionary forefathers. For this reason it would be improbable to suppose that our attempts to say what constitutes a 'normal

observer' or 'standard conditions' by appeal to our current conventions, as has been the practice of some philosophers, will neatly match those that would be unearthed by a biopsychologist (cf. Hardin 1990: 562–564). But the point is that, even so, in principle there would be a biological answer to Hardin's question, "What are the standard conditions for viewing the colors of stars and bioluminescent fish?" (Hardin 1990: 563). Of course, what doesn't follow is that we are in a position to give this answer.

A final advantage of biosemantic formulation of the strong representationalist thesis is that it does not employ treacherously misleading language which suggests that surfaces or regions are represented *as* having features. This is important, for any theory concerned to emphasise the nonconceptual character of experiences ought to exercise caution on this front.

So far in this cursory summary of the apparent advantages of biosemantics, I have been appealing to the general idea that experiences might be identified with dispositions to subject-relative features of the environment. Specifically, the claim has been that, as such, experiences will have been selected because of the benefits they conferred on ancestor organisms, in specific historical conditions. However, appearances aside, biosemantics cannot be understood by appeal to the idea that organisms are intentionally directed at creature-relative affordances in the way suggested above. Although I too was once attracted to this idea, in *The Presence of Mind* I argued that in order to properly understand intentionality, it must be the case that organisms are only ever directed at worldly features and objects which are independent of the organisms in question. This is because different kinds of organisms must be able to compete for the very same resources (cf. Hutto 1998d vs. Hutto 1999c: ch. 3). And, even though affordances are meant to be detectable properties of the world, their status as independent worldly features is blocked because they are only perceptible by certain types of creature. In this respect, their subject-relative nature makes them metaphysically extravagant and explanatorily dubious when it comes to understanding the nature of representation.

It is here that we come to the crux of the matter, for it would appear that only if we think of representations as functionally or dispositionally defined creature-relative responses, is the strong representational thesis plausible. Yet, for this very reason, we can see why it must be false. This is because representations cannot be understood in purely functional or dispositional terms. For if experiences are functionally defined by appeal to how a creature is *disposed* to respond, then they cannot to be understood in terms of how the creature is *supposed* to respond. It is by accommodating this distinction that the biosemantic theory of content enables us to solve the problem of normativity in a way that enables us to understand basic intentionality. But there is a price. It is that representations cannot be understood in purely mechano-functional or dispositional terms. Consequently, in so far as we must think of experience in such terms, even though they will be theoretically

compatible with a biosemantic approach to intentionality, they cannot be subsumed within it. The result is that if we want to avoid the problems of objectifying experience and instead maintain that experiences are creature-relative, or even subject-relative, responses which typically influence actions, then we are forced to distinguish intentionality and experience.

3.2. The Subject and Subjectivity

Ironically, in considering the more plausible biosemantic formulation of the strong representationalist thesis, we can better see the fatal flaw with the entire representationalist approach. For once we recognise the need to put the consumer into the equation, we are unavoidably confronted by the thorny issue of accommodating the subject of experience. To see the problem aright, let us remind ourselves of the nature of icon consumption in the cases of intentionality. Even though the consumption of an icon will have, in the past, benefited the ancestor organisms, it would be wrong to think that, in order to have had such effects, the organisms need have had any conception of what the icon represented. For example, consumer bees have co-evolved to respond appropriately to the dances of their fellows but neither the producers nor the consumers of such icons have any idea of what they are doing when they so respond. The bee is not a subject which interprets the significance of the dance. It does not identify what the adagio movement stands for.

It is this feature of the biosemantic account that enables its supporters to deftly dodge the problem which Dennett once labelled Hume's problem (Dennett 1985: 122). Hume's worry was that it is only sensible to talk of a representation as a representation *to* or *for* something or someone. But familiar problems start as soon as that something or someone, "...takes the form of a little man in the machine, a homunculus, a demon or a goblin..." (Dennett 1985: 57). For if such an internal interpreter is needed in order to make sense of the original representation, then there will need to be another internal viewer inside of it in order to explain how it is able to do this, and so on *ad infinitum*.[32] It is therefore a crowning virtue of Millikan's account that she shows that there can be intentionality without bringing in interpreting subjects at all.[33] While this works wonders in the case of intentionality, it scotches the possibility of using biosemantics as a means for explicating the nature of experience. For in order to understand experience we must bring the subject in on the act.

Galen Strawson expresses this as a truism, of which he identifies Frege as the originator, and hence names the thesis after him. Frege's thesis is that we must answer 'No' to the question, "Can there be experience without someone to experience it?" (Frege 1988: 48, G. Strawson 1994: 129).[34] In adopting it Strawson goes on to note that:

> A subject of experience is not something grand. It is simply something that must exist wherever there is experience, even in the case of mice or spiders – simply because experience is necessarily experience-for (G. Strawson 1994: 133).

Strawson bids us to note that in its minimal form Frege's thesis is even compatible with the idea that there is a different subject of experience for each experience.

3.3. The Representationalist Dilemma

Other considerations aside, armed only with Frege's thesis, we can get straight to the heart of the trouble about subjectivity. For the representationalist about experience must face the following dilemma; either accept Frege's thesis or deny it. If they accept it, then they owe us an account of the nature of the experiencing subject. Furthermore, this account must be compatible with their favoured theory of representation, even if the subject doesn't play anything other than a supporting role in it. On the other hand, if they deny Frege's thesis, it is doubtful they will be able to make sense of experiences at all, as I hope to demonstrate. As with all good dilemmas, the result is that either way the strong representational thesis is shown to be lacking the resources needed to deal adequately with the subjective nature of experience.

3.3.1. Changing the Subject

How might advocates of strong representationalism respond to the first horn? They could try to produce an account of the experiencing subject which is at least, consistent with their favoured theory of representation. They could attempt to answer the question: Who, or what, is having the experience?[35] This is a large burden. The usual suspects are the system as a whole or its brain. But it is demonstrable that neither of these are equivalent to subjects of experience (cf. Lowe 1996: ch. 6–9).

Chalmers' discussion of alleged thermostat consciousness illustrates the common problem that lies behind these suggestions. He explicitly accepts Frege's thesis but also recognises that in this case:

> ...there does not seem to be room in a thermostat for someone or something to have the experiences: Where in the thermostat can the subject fit?....We will not find the subject in the thermostat any more than we will find a subject inside a brain (Chalmers 1996: 296–297).

I think Chalmers is entirely correct in making this a focus of concern and I will discuss the issue of the location of experience and experiences in detail in chapter four. For the moment I want to consider the way in which some thinkers blur the distinction between the mind and the brain so as to make the problem less obvious. Indeed it is standard for philosophers and neuroscientists to talk of the mind/brain without embarrassment. Akins is typical in making the easy slide of the imagination. She moves effortlessly between talk of persons, or subjects, and talk of brains. For example, she writes:

> Looking at this very brain – cold, gray, and granular, stuck with pins and flags – it seems odd to think *this* was once *someone,* a thinking and feeling person....This brain was once very much a person and, in some sense, I as an experiencing subject, am just such a brain as well (Akins 1993a: 124, cf. also Hardcastle 1995: 10, 194).

I have elsewhere given reasons why persons cannot be blithely identified with brains in this slipshod fashion (Hutto 1999c: ch 7, §4.1). The problem for someone trying to make good on this picture boils down to that of solving the binding problem – that is, the problem neuroscientists face in trying to explain how the various non-conscious inputs from different sense modalities all come together in the form of unified experiences (Dennett 1991a: 119, Hardcastle 1995: ch. 6). Various speculative attempts have been made to solve this mystery. For example, Crick has claimed that synchronised neural activity, in the 35 to 75 hertz range, in the various modalities might provide a neurological explanation of the common sensorium (Crick 1994, cf. Searle 1997: 33–34). However my purpose in bringing this up is not to suggest that such speculation is hopeless, but rather to emphasise that even if it were solved, we would still have not resolved the problem of subjectivity.

For even if we managed to solve the binding problem, we would still be left wondering: What consumes the now unified experiences? And, how does it do so? In my third year cognitive science course I use footage of a connectionist network that is designed to detect changes in light and dark and which configures itself in such a way that it alternatively resembles child-like drawings of day scenes or night scenes when presented with the appropriate stimulus.[36] These patterns are, rather morbidly, set up inside a facsimile cut-away skull. Presumably this is supposed to provide an insight into 'what is going on inside our heads' during vision. Obviously this model was not designed in order to seriously defend any philosophical doctrine, but it is suggestive and neatly illustrates the problem at hand. For again, the key question is: Who or what is supposed to see this display? The brain as whole or some part of it? Can we even begin to take such a

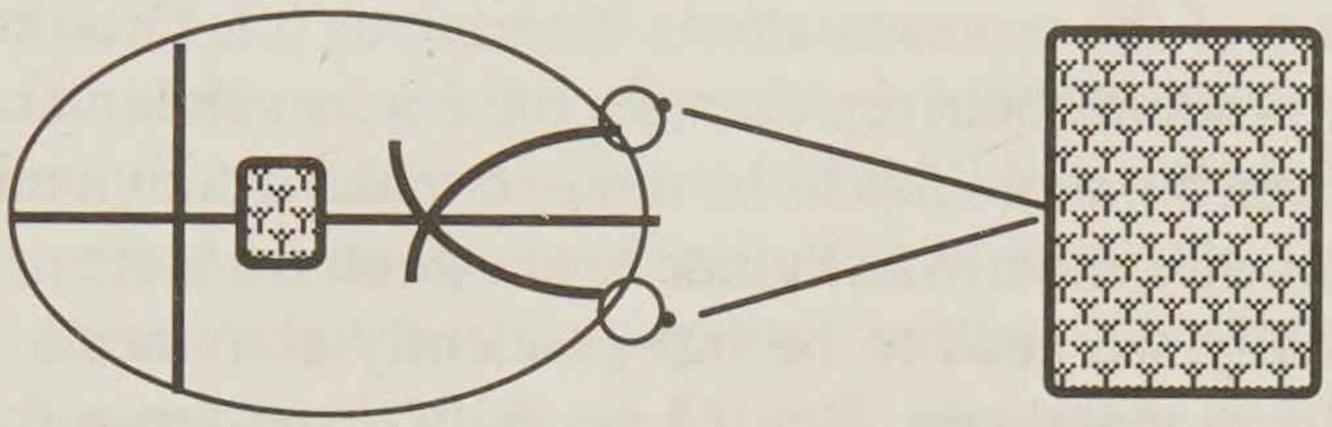


Figure 7. *Who is viewing the internal scene?*

proposal seriously (cf. Lockwood 1989: 60)? To the extent that representationalists hope to escape this difficulty by stipulating that somehow the system as a whole, or the brain, can go proxy for the subject of experience, without further ado, their solution is clearly inadequate.

3.3.2. Avoiding the Subject

Perhaps the proponent of strong representationalism will attempt to avoid, rather than solve, their problem by simply leaving out the subject altogether. As Flanagan warns:

> One mistake to stay away from is positing a center of consciousness – a specific faculty devoted to consciousness – that receives some but not all messages causally relevant to human activity. Some patterns of neural activity result in phenomenological experience; other patterns do not. The story bottoms out there (Flanagan 1991: 333).

Combined with representationalism, this move generally leads to a conflation of 'what one is conscious of' with 'the way in which one is conscious of it'. Dretske provides a very clear statement of this idea even though he is a strong advocate for the idea that representations are always representations for something. He writes, "What makes...an experience – the experience it is is what it is an experience of" (Dretske 1995: 36). But here again the spectre of subjectivity returns to haunt, for in making this manoeuvre one is ultimately left with no answers to questions about experience, not simply poor ones, nor poorly developed ones.

To see why, consider that Dretske's proposes the above identification in order to enable the strong representationalist to harmlessly explain why the advocates of the Nagel-Jackson challenge are right to think that experiences cannot be understood from a physicalist or functional perspective. According to him the alleged reason why a neurologist cannot give an account of experience is because

the facts of experience are really facts about representations. But neurology can at best help us to understand the vehicles of such representational content; it is silent about the nature of the representations themselves (cf. Dretske 1995: 3). I agree that neurology is silent about representational content and intentionality (cf. Hutto 1999c). Yet, even so, more has to be done to make a convincing case that this is the same reason why experiences elude explanation from the neurological point of view. Specifically we need to be independently convinced of the truth of the strong representational thesis. But if I am right, experience is invisible from the representational point of view as well as the neurophysiological. Let us consider the consequences of this.

Dretske bids us to focus solely on what the experience is meant to represent, as opposed to how it appears to a subject. He suggests:

> ...in running discrimination tests on dogfish, Mary is determining just which deformations of the electric field the dogfish is sensitive to and which it is 'blind' to. Mary is thereby learning exactly what it is like (for dogfish) to sense electric fields (Dretske 1995: 87).

This idea seems outrageous because, without mention of the subject of experience, it is impossible to understand what is meant by the phrase what-it-is-like for the dogfish to have an experience (supposing it does). This is clearly illustrated yet again when Dretske illegitimately equates talk of mechanisms detecting differences in speed with talk of their feeling speeds in different ways and of their having different quales and experiences of such speeds (cf. Dretske 1995: 75). Consider also his example of the blood-sucking parasite which strikes when it detects certain temperatures. He writes:

> Since in the case of our parasite, the property the object (the host) has when the perception is veridical is the property of being 18°C, that has to be the quale of the parasite's experience of the host whether or not the parasite is perceiving the host veridically. So anyone who knows what 18°C is, knows what this property is, knows what quale the parasite's experience has (Dretske 1995: 84, cf. also 83).

Because his eyes always remain firmly focused on objective features of the world, what is lost, or missing, in Dretske's description, is precisely an account of how things *appear* to the *parasite*. Compare this approach with one discussed by Clark. In the passage below he tries to make sense of a tick's *Umwelt*.. He writes:

> Butyric acid, when detected, induces the tick to loose its hold on a branch and to fall on the animal. Tactile contact extinguishes the olfactory response and

> initiates a procedure of running about until heat is detected. Detection of heat initiates boring and burrowing (Clark 1997: 24).

Clark regards *Umwelts* as a kind of niche-dependent sensing and is thus inspired by Von Uexkull's talk of invisible worlds. All the same his description of the tick's *Umwelt* is just an objective description of how and to what the tick responds. But my point is that it is not for nothing that Von Uexkull's work is entitled *A Stroll through the Worlds of Animals and Men: A Picture Book of Invisible Worlds* (cf. Clark 1997: 24). The worlds are invisible precisely because descriptions of these kinds give us no insight into how things look or feel to the parasite in question (if they look or feel anyway to them at all).

But the representationalist arsenal is not yet empty. For rather than denying that the representational account misses out how things are presented to a subject, they can return volley and ask: Even if there are such non-representational experiences, why do they matter? This is Akins' strategy. She provides a thought-experiment in which the day has come such that completed neuroscience enables us to watch a 'sens-surround' film of bat phenomenology. However, despite having bought tickets on the basis of this exciting prospect, we are immediately let down and confronted with a film of colours rather than sounds. Nevertheless we are assured that this doesn't matter much because what is important is that the neuroscientists have isomorphically correlated all the colour changes with the sonar sensations of a bat. This is meant to provide an effective visual tour of its invisible world. To quibble about the kind of experience on offer would be to miss Akins' main point. She is not suggesting that we will one day capture bat phenomenology in all its glory. Rather her point is that if we accept that the colour show is an adequate guide to the bat's sonic sensations, we will still not, "...understand the significance of the coloured images" (Akins 1993b: 264). Thus she claims that:

> All the film can show us are *meaningless* (albeit coloured) visual events. Put another way, what the bat film seems to prove is that it is not for lack of 'quality' of the bat's experience that his world eludes us. Even if, *ex hypothesi*, we were able to produce in ourselves the 'very feel' of the bat's experience, its 'qualitative' aspect, we would not understand the bat's point of view (Akins 1993b: 266, emphasis mine).

In focusing on the issue of meaning, Akins shows her own true colours by revealing what she takes to be of primary importance; cognitive potency. For, as she sees it, once she has established that qualia are a kind of cognitive side-show, whether they exist or not, there is no further reason to bother about them. But this move is too fast. I think she is right to think that experiences are cognitively impotent. Even in their nonconceptual forms experience and intentionality must not be conflated, for experiences do not intrinsically represent anything. This

explains how it is possible that two organisms might be intentionally directed at the same object, but one might be capable of experiencing it and the other not. For this reason there can be cases of intentionality without experience or subjectivity. I provided reasons for thinking this in chapter one, sections 2.3 and 2.4. In taking this line I am denying Searle's connection principle, according to which intentionality and consciousness are intrinsically related (Searle 1992: ch. 7, cf. Lockwood 1989: 44). I agree with Nelkin in thinking that if we have trouble in recognising this it is because in standard adult human experience at least three forms of consciousness are generally bound together. He identifies these in terms of (a) phenomenal states, (b) intentional states, and (c) introspective states (Nelkin 1993: 225). This is structurally correct but I do not like the labels. I prefer to speak of differences holding between intentionality, experience and self-awareness, and to drop talk of states altogether. But to deny the connection principle is not to deny that experience is typically bound up with intentionality.

Furthermore it must be recognised that cognitive impotence is not the same as causal impotence. Thus we can accept all that Akins says while still maintaining that the having of experiences generally makes a difference to performance. Consider her own discussion of the contrast between the way we would react to the bat film as opposed to the way we react to the standard hang-gliding sens-surround film shown in most IMAX cinemas. When viewing the latter, what is important is not primarily that we interpret the scene before us as one of cliffs and valleys, but that such imagery has non-cognitive effects on us (cf. Van Gulick 1993: 142–154).[37] It is plausible that even our ancestors who lacked the conceptual means to identify such things would be similarly moved by the apparent sharp vertical drops and inclines. And if the counter to this idea is that, in our case, such responses are representational, then we are owed an explanation of such nonconceptual reactions. Yet there is no prospect of developing an account which appeals to the idea that the brain, not the person, somehow 'interprets' or 'represents' these images in such a way that they, "...go proxy for the real world" (Akins 1993b: 265).

Indeed, even if experiences were causally impotent but real, there would still be a problem in accounting for their existence and their subjective nature.

4. Conclusion

Given that I think experiences are both real and causally efficacious, but non-representational, it must be asked: How can they be so? In attempting to deal with this question, it may appear as if we are faced with the challenge of developing a theory of consciousness, in the metaphysical and explanatory sense, as suggested at the end of section 2. But I do not think that such a theory is on the cards. To see why, it will be important to diagnose the problems inherent in physicalism when it

comes to addressing this how-question. As a prelude to that diagnosis, in the next chapter, I defend the idea that experience is efficacious while, at the same time, showing why this claim must be kept separate from an endorsement of functionalism and explanatory forms of physicalism.

CHAPTER THREE

The Failure of Explanatory Physicalism

"Seems, madam! Nay, it is. I know not 'seems'"

– Shakespeare *Hamlet* ii. 76

1. Introduction

Unlike some, I am committed to the view that conscious experiences exist and that they make a difference. Nevertheless, I do not endorse any form of functionalism, physicalism or interactive dualism. I will say more about the comparative virtues and vices of what I take to be the most plausible forms of the last two options in chapter five. In this chapter I critique the different versions of functionalism and explanatory physicalism. In section two I argue that abstract versions of functionalism are inadequate in certain key respects. This is particularly clear when they are compared to a biologically inspired homuncular teleofunctionalism. Indeed, because homuncular teleofunctionalism provides some insight into the possible origins of experience, it is able to give the right line of reply to Chalmers' why-formulation of the hard question, which asks: Why is there conscious experience at all? Yet, despite this, I baulk at endorsing the doctrine in its standard form because it is a special instance of the psycho-physical identity theory.

But what is wrong with identity theories? In a nutshell, the problem is that the proposed identities cannot be made intelligible. We can best see this by considering the really pressing version of the hard question, the how-question. It asks: How can experience be causally efficacious? How can the mental just be the physical? These questions reveal the true metaphysical problem.[38] I claim that there is no intelligible way for physicalists or identity theorists to answer these questions. Thus section three of this chapter is devoted to cataloguing the difficulties inherent in the familiar attempts to provide such answers by appeal to various forms of explanatory physicalism, reductive or non-reductive. Only after analysing the fatal weaknesses inherent in these attempts will we be in position to properly diagnose what is essentially wrong with the physicalist approach as a whole. This is the task of chapter four. Once it is clear that the metaphysical

problem only arises against the backdrop of physicalism, we will be in a much better position to take a proper decision about the best kind of metaphysics. This will be the task of chapter five.

2. Functionalism and the Why-Question

During the hey day of positivism and for some time after, behaviourism was the reigning scientific version of philosophy of mind. Followers of that doctrine refused to accept that non-observable psychological phenomena had any place in serious theorising. In their view, any and all genuine mental phenomena needed to be identified with dispositions to behave and had to have operational definitions in terms of observable causes and effects. Behaviourists were encouraged to treat our everyday psychological concepts as reducible to visible stimuli and responses because they thought it was the best way to maintain scientific credibility. The word of the day was that psychologists should be concerned with nothing over and above that which was observable and testable. In the case of the mental, this amounted to charting and describing the stimulus-response behaviour of subjects.

I will not rehearse all the arguments against behaviourism since what I say against abstract functionalism in the next section applies to behaviourism as well. Suffice it to say that the view has gone out of fashion. It is particularly unpopular as a means of understanding consciousness. The major problem with the approach is that it is wholly third personal and thus has no rational means of accommodating the so-called inner character of experience. Thus behaviourists are forever being accused of feigning anaesthesia when they provide purely stimulus-response descriptions of experiences, such as pain. And, even if they could somehow dodge this criticism, the fact that they employ a criterion for the ascription of consciousness based on outward behaviour alone apparently makes their list of conscious beings far too inclusive. This is highlighted by the fact that it permits what we would intuitively regard as behavioural zombies to be members of the community of conscious beings. For non-behaviourists these are creatures which, for all intents and purposes behave as if they are conscious but which are, in fact, not (cf. Flanagan 1991: 310). Since imagining instances of such zombies is no great strain, many have been inclined to shun behaviourism on these grounds alone.

Of course, conjuring up zombies is not the same as producing an argument against behaviourism. Behaviourists can insist that if the entities in question behave in the appropriate way, then they simply are conscious. However, introduction of zombies provides the basis for a cartographic survey of philosophical intuitions. Noting how a philosopher reacts to different breeds of zombies – behavioural, functional or physiological – reveals the character of their position, even if it doesn't provide a secure means of attacking it. The kind of

zombies one is prepared to countenance is indicative of the territory one must defend. By such considerations we can gauge the *prima facie* credibility of positions and establish their theoretical commitments and burdens. What zombies show, in the case of behaviourists, is that they have staked out a claim on indefensible territory. Its borders are too wide.

Faced with these problems, it is easy to see why behaviourism conceded the title of 'received doctrine in philosophy of mind' to functionalism. According to functionalists, if sights, sounds, pains and other conscious phenomena are to be respectable constructs of a science of the mind, they must be identified with specifiable causal roles and, either directly or indirectly, with the inner states which fill those roles. Such inner 'mental' states are caused by certain typical external stimuli and interact with each other and other bodily states in order to produce outward behavioural responses. In large measure, functionalism's popularity derives from the fact that it gives both philosophers and psychologists the apparatus with which to posit inner, causally efficacious mental states, in a way that would have been a cardinal sin when the behaviourists were in power.[39] But this account does not cut finely enough since there are at least two very different ways of characterising functionalism's basic message. It can be formulated under the auspices of abstract functionalism or homuncular teleofunctionalism. In what follows I discuss these versions in turn and provide reasons for preferring the latter.

2.1. Abstract Functionalism

At the heart of abstract functionalism is the distinction between role and occupant. David Lewis originally drew our attention to this distinction in a bid to explicate the nature of theoretical discourses. He reckoned that our mental concepts, such as 'belief' and 'desire', are theoretical terms defined by their relation to other similar terms within the same theory and also entities and events not specified within it – such as their typical causes and effects. In his view theoretical terms gain their meaning by implicit functional definition which specifies their location in logical space. To make this clear, Lewis relied on a handy piece of technical apparatus, known as the Ramsey sentence, which provides the means of type individuating functional properties such that they can be subsequently identified with a token correlate of an underlying state type. Hill gives a tidy account of how Ramsey's logical work is put to good use by abstract functionalists (cf. Hill 1991: 52, 53). We can see the two-tiered nature of the approach by considering his characterisation of a Ramsey functional description, reproduced in (A), and a Ramsey functional correlate, reproduced in (B).

A. $P(T_1,...,T_n, I_i,....,I_j, O_1,....,O_p)$ is a sentence that represents a psychological theory in which $T_1,...,T_n$ are the terms of the theory, $I_i,....,I_j$, is a list of terms that stand for types of inputs, and that $O_1,....,O_p$ is a list of terms that stand for outputs.

B. Being a state-token y such that there exists state-types X_1, ...,X_n such that (a) $P(X_1,...,X_n, I_i,....,I_j, O_1,....,O_p)$, and (b) y exemplifies X_i.

The sentence, A, is just a formal expression of the psychological theory presented in such a way that we can select any given functionally defined term in that theory and designate a corresponding property that realises it by appeal to B. For example, in this case T_i is correlated with the state token y which is exemplified by X_i. Technicalities aside, what is important to note is that Lewis' primary supposition is that there is an isomorphism between the mentalistic vocabulary, the T-terms, and the abstractly conceived functional descriptions. These are defined in terms of their typical causes and effects, the O-terms. As Stich notes, this approach is initially plausible because most experiences have reasonably characteristic inputs and outputs. He writes, "In setting out theory-theory, a commonly used illustration is pain, or some specific sort of pain, like a toothache...[This is because] pain has relatively strong and direct links with both environmental stimuli and to behaviour..." (Stich 1983: 23). The idea is that if this primary identification could be secured, then it would be possible to achieve a secondary reduction of T-terms to physical states. But it is important to note that the identification of T-terms with the particular items, properties or states that act as the realiser mechanisms is almost an afterthought. Lewis was primarily concerned with the question of how we should understand the meanings of commonsense psychological terms.

However, as it is doubtful that unmodified commonsense psychology will be an integral part of our best scientific psychology, many philosophers are attracted to more technologically-based versions of functionalism, such as Turing machine and other computational varieties. For our purposes, it is important to note that Lewis' commonsense functionalism is structurally very similar to its cousin, Turing machine functionalism, which Putnam begot. As the name implies, it deploys a mathematically conceived notion of function as specified by the states of a Universal Turing machine (cf. Bechtel 1988: 115–116). Accordingly:

> ...the Machine Table specifies, for every possible combination of a 'state' and a complete set of 'sensory inputs', an 'instruction' which determines the probability of the next 'state', and so the probabilities of the 'motor outputs'... (Putnam 1967b: 434).[40]

The Turing Machine table plays the same role as the Ramsey functional descriptions in Lewis' account, just as Turing Machine states play the same role as Ramsey functional correlates. This can be seen if we consider Lycan's technical explication of what it is for something to realise a given Turing Machine. All this requires is:

> ...just for there to be some one-one mapping that correlates a set of discrete (possible) physical inputs, physical states, and physical outputs of the organism with abstract input-letters, logical-state symbols, and output-letters (respectively) appearing in the machine program, in such a way that for any instruction $I(S_i, s_i)$ of the program, the organism goes into the physical correlate of the appropriate value (S_i, s_i) of $I(S_i, s_i)$ whenever the organism is in the physical correlate of S_i and receives the physical correlate of s_i as input (Lycan 1988: 28–29).

In a related way, the central claim of abstract functionalism can be expressed by focusing on the procedural rules by which formal symbols are manipulated in a computational programme. This version of functionalism is based on Pylyshyn's claim that, although computer programmers can and do work at many different levels with different compiling and interpreting languages, it is theoretically possible to specify a level which uniquely and non-arbitrarily defines a given system's functional architecture in terms of basic procedural roles (cf. Pylyshyn 1984: 92, Bechtel 1988: 118–119). A consequence of focusing on the nature of such basic procedures is that this provides a more restrictive, but still abstract, criterion of what constitutes functional equivalence than we get if we opt for mere Turing Machine functionalism. For, on this view, two systems are only thought to implement the same programme if they formally process the same symbolic information by means of the same algorithms. Let us, following Bechtel, call any such view a species of computational functionalism. Computational functionalism is the centrepiece of classical cognitivism and it is the most widely endorsed version of the doctrine.

Although I will not pursue this issue at the moment, it is important to note that, in the first instance, despite subtle differences, all three of these abstract versions of functionalism presume that we can identify psychological phenomena with abstract functional or causal roles of some kind. Indeed, it is only in a secondary sense that these accounts are concerned to identify such psychological phenomena with the ontological items which fill, or occupy, those roles.[41] In other words, at stage one, abstract functionalism is non-committal on the issue of ontology. Consider that the humble carburettor can be functionally defined in terms of the abstract causal role it fulfils. So defined, something is a carburettor insofar as it mixes air with liquid fuel. In theory, it could be made of metal, rubber, plastic, or

soul-stuff – as long as it discharged this stated function. Unlike the assumed one-to-one correspondence between theoretical or mental vocabulary and functional roles, the relation between functional role and its realiser can be one-to-many, as opposed to one-to-one. This is why, in reply to the identity-theorists of his day, Putnam claimed:

> ...it seems more likely that the functional state as described is invariantly 'correlated' with [a given mental phenomenon], species-independently, than that there is either a physical-chemical state of the brain....or behaviour disposition so correlated (Putnam 1967b: 439).

The fact that only certain types of material are, *de facto*, able to discharge certain functions is important, but it is not of primary interest to the abstract functionalist. Therefore it is hardly surprising that Turing machine and computational functionalism are often generically characterised by the metaphor which likens the mind to a computer. This is because it is thought that a computer's most interesting operations are at the level of software or programme and that these do not specify or require any particular implementation at the level of hardware. I emphasise this aspect of abstract functionalism because it will be important later. What I want to consider now is, first and foremost, whether or not functionalists of this stripe can make a convincing case for the claim that it is possible to capture the essence of experience by appeal to various, abstractly understood, causal or functional roles. We have already seen reason to doubt this in chapter two, sections 2.1 and 2.2.2. But I will now raise further worries about the likelihood of making this position credible.

2.1.1. Standard Objections to Abstract Functionalism

There are several good reasons to reject abstract functionalism, no matter which guise it wears. The first complaint does not concern the issue of consciousness, but rather the very idea of a single, principled, role-occupant distinction. For example, Lycan raises a serious objection that, in the form advocated by abstract functionalists, this distinction is philosophically artificial and ill-grounded. Hence, he claims that:

> ...which level of description of the machine's operation counts as 'the' program, as opposed to the mechanical stuff that realizes 'the' program, is entirely observer- and interest-relative. The question, 'What program is the machine now running?' has more than one answer: 'Do you mean in assembly language, in BASIC, in C, or in [say] PILOT?' – and the preferred answer will vary in context according to interests and purposes. My moral is

> that the absolute 'function'/'structure' distinction; borrowed from automata theory by philosophers and then misapplied to living organisms, does not even apply to computers in the real world...(Lycan 1988: 47).

Secondly, there are some quite provocative thought-experiments in the literature which give us reason to think abstract functionalism provides the wrong criterion for the ascription of consciousness. Block's counterexample of the homunculi-headed system, which is the *locus classicus* of the problem of absent qualia, is to my mind the most revealing (cf. Block 1990, Lockwood 1989: 37, Van Gulick 1989: 218). Block imagines a scenario in which a complex non-living system (one intuitively incapable of sensation) isomorphically mimics the responses of a human being (who is undergoing a painful experience) in such a way that their inputs, inner states and outputs can be captured by the very same Ramsey functional description or Turing Machine table. In Block's famous scenario, the Chinese nation is persuaded into running this programme for a brief time as a matter of national pride. In order to achieve the simulation, the citizens get rule-governed instructions from openly visible satellites and communicate with one another by radio-links. In some cases the product of their interactions act as inputs to a distant artificial body which in turn produces outputs in the form of further instructions to the populace. By keeping this process going it would be theoretically possible to simulate the abstract functional responses of a sentient being. Hence, at least for a short period, the human in pain and the Chinese nation would be functionally equivalent. Depending on the level of grain, this kind of simulation could render Turing Machine equivalence or even equivalence at the level of formal symbol processing.

The well-known problem is that if these two systems are functionally equivalent, then the abstract functionalists have no principled grounds for saying that one is really undergoing the experience of pain and the other not. Either they must both be having the experience of pain or they must both lack it. Clearly this is a preposterous result since on the one hand we have a human being in genuine pain and on the other we have a conglomerate of Chinese individuals engaged in a bizarre formal ritual. To countenance the possibility that the Chinese nation, as a whole, or the artificial body it was linked to, were experiencing pain simply in virtue of this short-lived orchestration, is beyond the pale. The dilemma is that any other verdict is unprincipled or requires us to go beyond functionalism.

Faced with this choice, some abstract functionalists choose the second option and admit that experience is simply beyond the grasp of functional analysis while nevertheless remaining a real property. In so doing they relegate consciousness to the status of epiphenomena. Even Jackson, a self-confessed *qualia freak*, advocates this kind of response. He tells us that our experience of the smell of a rose is just an epiphenomenal extra, a superfluous design feature that tags along

with our capacity to make important discriminations. He compares this kind of piggy-backing to that displayed by the thickness of a polar bear's coat. Thickness is a property that lawfully accompanies that of warmth, but it was for the property of warmth, not thickness, that polar bear coats were originally selected. Thickness is therefore an exaptational feature. Why shouldn't it be the same with experience? If it were so, it would explain why abstract functionalist analysis is unable to capture conscious experience.

This response is logically and evolutionarily viable. Nevertheless it is ill-motivated. The suggestion that experiences are epiphenomenal goes against the evidence gleaned from cases of blindsight and other neurological disorders. It certainly appears as if experience makes a crucial difference. I will say more about this in section 2.2. Moreover, endorsing epiphenomenalism does nothing to alleviate the pressure generated by the how-formulation of the hard question. As Jackson admits, on his view, "...it is left a total mystery how [experiences] fit into the world view of science" (Jackson 1990: 475). When we put both these considerations together, epiphenomenalism becomes doubly unattractive.

Alternatively, dedicated functionalists might simply bite the bullet and endorse the Russellian thought that, "...perceptive awareness is a species of 'sensitivity', which is not confined to living organisms, but is also displayed by scientific instruments and to some degree by everything..." (Russell 1949: 13). This is a principled line for those who wish to stand their ground, but it is overly liberal. If having the right abstract functionalist organisation is sufficient for having experiences, then too many of the wrong sort of items will meet the pre-requisite for being experiencers when clearly they should not. We would have to tolerate not only the bizarre possibility of a conscious Chinese nation, but possibly even the idea that pails of water heated by the sun might be having experiences, at least at certain moments. This is because it is theoretically possible that the complex molecular interactions in such a system could accidentally mimic the abstract functional behaviour of a sentient being (cf. Lycan 1998: 32–34). This is a recognised embarrassment. We would be in precisely the same awkward position in which Chalmers finds himself when he advocates information-based criterion for consciousness, as discussed in chapter two, section 2.1.

Clearly, in its more extreme forms, pan-psychism is neither attractive nor credible. But it could be argued, more plausibly, that although further constraints must be specified in order to rule out such bizarre cases, experiential sensitivity is still nothing but a form of complex informational sensitivity. Perhaps the difference is only one of degree along a common spectrum. On this view there is no interesting distinction in kind between mere informational sensitivity and experience (cf. Dennett 1997: 85). Yet in order to make this case convincing, it would be necessary to reconstruct our ordinary understanding of experience. I will

discuss the prospects of this move in more detail in section 3.2. But these problems can be avoided if we adopt a less abstract version of functionalism.

2.2. Homuncular Teleofunctionalism

Most functionalists admit that absent qualia, or functional zombie cases and those such as the homunculi-headed nation serve to embarrass behaviourists and abstract-functionalists. Still it appears possible to repel boarders and save the good ship functionalism by advocating a form of homuncular teleofunctionalism. For example, Paul Churchland hopes to alleviate the tension by getting us to stop concentrating on abstract job descriptions – crudely, what the thing is doing – and to focus instead on engineering descriptions – crudely, how the thing actual does what it does (Churchland 1989: ch. 2, cf. also Lycan 1988: 32, Flanagan 1991: 348). More formally, Lycan unpacks this idea in the following way:

> To be in pain of type *T*, we might say, is for one's sub-...sub-personal Φ-er to be in a characteristic state $S_T(\Phi)$, or for a characteristic activity $A_T(\Phi)$ to be going on in one's Φ-er (Lycan 1988: 41).

Accordingly, experiences should not be identified with the occupants of abstractly characterised roles but with more tightly specified states or properties within a given functional architecture. But, crucially, this way of formulating the functionalist doctrine bids us to abandon the classical cognitivist idea that there is a real distinction between the functional aspects of a system and its underlying implementation mechanisms. In contrast, we are bidden to ask the central question of a Cummins-style functional analysis, which is: "In virtue of what does S have P?" (Cummins 1983: 15). And the point is that at every level – or nearly all – we find that we can ask questions about how a given higher level capacity is implemented. If this is correct, then there is no single, interesting point of divide between functional architecture and its implementational mechanisms in the way the abstract functionalists presuppose.

This approach has several prominent virtues. First of all, it tallies with the fact that the quality of our experiences can be altered or affected by specific changes in the mechanisms that produce them. For example, they can be affected by drug-taking or neurological disorders. This can be easily explained by the fact that higher level capacities depend upon sub-capacities. This much seems undeniable. But we must be careful in how we understand this claim. For unlike abstract functionalists, who primarily identify experiences with the specific higher level roles they fulfil, according to homuncular teleofunctionalists the relationship between higher-level role and experience is much looser. Thus it is at least possible on their account that an experience might occur even if it was not playing

its typical role or even if it was dissociated from its typical inputs and outputs. This might happen if there was, for example, breakdown in or between the sub-mechanisms which underwrite the experience. Thus homuncular functionalism is able to avoid the criticism that it is possible to imagine that we might have a particular kind of experience even if it is not performing its standard duties (cf. Hill 1991: 75, Lycan 1988: 66)

Finally, as advertised, this approach easily dispels worries about absent qualia. For if what does the job in one system differs from what does it in another, then these two systems will be functionally distinct at the engineering level, even if they are functionally equivalent at some higher level of abstraction, such as gross behavioural performance. In this way homuncular functionalists wield an even more restrictive criterion of functional equivalence than do the classical computational functionalists. And, if one turns to natural selection to specify the jobs being performed, as is the tradition, then the criterion can become very restrictive indeed (cf. Lycan 1988: 43, Hill 1991: 78-80). Dennett makes this last point, when he writes:

> It has always been clear that wherever you have transducers and effectors, an information system's 'media-neutrality' or multiple realizability disappears. In order to detect light, for instance, you need something photosensitive – something that will respond swiftly and reliably to photons, amplifying their subatomic arrival into larger-scale events that can trigger still further events. (Rodopsin is one such photosensitive substance, and this protein has been the material choice in all natural eyes, from ants to fish to eagles to people. Artificial eyes might use some other photosensitive element, but not just anything will do) (Dennett 1997: 97, cf. also 98–101, Flanagan 1991: 327).

Dennett is keen to stress that sensory receptors are, "...tied at both ends, you might say, to transducers and effectors whose physical composition is dictated by the jobs they have to do; in between, everything can be accomplished by media-neutral processes" (Dennett 1997: 99). But, given this, it is not likely that the intermediate links of the input-output chain could be easily swapped for just any others since each connection must be compatible with its nearest co-workers if the system as a whole is to operate properly. Add this to the fact that naturally evolved creatures are products of an historical process which draws on limited resources and one is driven away from postulating interesting forms of multiple realisability. On this basis, despite sponsoring functionalism, Dennett concludes that, "...when you make a mind, the materials matter" (Dennett 1997: 100).[42]

Armed with these considerations, homuncular functionalism has the virtue of immediately excluding certain unwanted artefacts from the class of sentient beings. For example once we look beyond formal isomorphic correlations, there is

nothing internally similar in the way pains are caused in me and the way they are not caused in entities like Block's Chinese nation. Or to put the point in line with worries about zombies, once we insist on something as strong as nervous-system equivalence as a basis for postulating experiential equivalence, the relevant monsters cease to be mere behavioural or functional zombies. They transform into Güzeldere's physiological zombies (Flanagan and Polger 1995: 314, Güzeldere: 1995: 328). What are they? Consider that, in discussing certain neurological disorders, Weiskrantz has canvassed the real possibility that there might be zombies in our midst. That is to say, he suggests that there are those who exhibit complex behaviour without experiential awareness (Weiskrantz 1997: 97). His remarks are, of course, tongue in cheek but they help to remind us what we need to imagine when we wish to talk of physiological zombies. For there can be no imagined neurological difference between ourselves and alleged physiological zombies. For all intents and purposes, such creatures appear to be replicas of conscious beings, both inside and out. Not only do they share our outward behaviour and abstract functional organisation, they have physically identical bodies as well, in every detail. For this reason only substance or property dualists believe them to be genuinely possible. Should the homuncular functionalist fear them? I think not.

Those who fear such creatures are subject to unnatural doubts which are uninteresting to the naturalist because they cannot be dispelled by any further inquiry at all (cf. Peirce 1868).[43] Nevertheless, it may be argued that they remain logical possibilities. But what does this claim come to? For we might also wonder: Is it logically possible for a bird to fly without wings? I suspect it is, if logic permits a structural abstraction from ordinary discourse which enables us to mix and match objects, properties and states of affairs without consequence (cf. Kitcher 1993: 84). But what could underwrite these imagined appearances? For a bird might fly without wings if God were to help it or if it had an alternative means of doing so, such as an aeroplane. Likewise, the issue for the naturalist is not whether physiological zombies are logically possible but rather, what would enable them to keep up appearances in the absence of the normal factors? In this light, naturalists would be within their rights to take a leaf out of Tweedledee's book of logic and say:

> ...if it was so, it might be; and if it were so, it would be; but as it isn't, it ain't. That's logic (Carroll *Through the Looking Glass*: 231)

The point is that these kinds of general worries ought not to be what interests us about zombies in any case. As I said before, their imaginability does not serve to refute or support any given theory. Even Chalmers concedes the fact that, regarded as a natural possibility, physiological zombies are not worth taking

seriously (cf. Chalmers 1996: 180). Yet there are two important points to make about such cases.

Firstly, if one allows the natural possibility of behavioural or functional zombies as opposed to their physiological brethren, then one must countenance the real possibility that two systems might be functionally equivalent at the level of outward responsiveness to stimuli and yet differ with respect to how they manage to be so. It is possible that there is no detectable difference in their outward ability to perform in a range of tasks despite this internal difference – *ex hypothesi*, they produce their performances by different means. But to accept this is to endorse conscious inessentialism. Flanagan defines it as follows:

> [Conscious inessentialism]...is the view that for any mental activity M, performed in any cognitive domain D, even if we do M with conscious accompaniments, M can in principle be done without these conscious accompaniments (Flanagan 1991: 309).

Naturalists ought to accept this doctrine. Yet Chalmers thinks that anyone who endorses conscious inessentialism cannot possibly answer the why-formulation of the hard question, which asks: "Why should there be conscious experience at all?" (Chalmers 1996: 4). Lurking in the background is the question: Why isn't mere informational sensitivity sufficient to co-ordinate an organism's response to its environment? Thus he claims that in order for consciousness to have, "...arisen during the evolutionary process....it [must] serve a function that could not be achieved without it" (Chalmers 1996: 120). This is simply false. All that is required is that having experiences conferred an edge at some stage in the cognitive arms race between two or more sorts of naturally evolved creatures – ones capable of experiencing, Ψs, and ones without this capacity, Φs.

Flanagan considers this to be exactly what happened in our own natural history. He suggests that our Ψ-ancestors had greater biological fitness in activities such as fleeing, fighting, food gathering and sex. Still it might be wondered why subjects of experience, "...might have won – or should have been expected to win – an evolutionary battle against very intelligent zombie-like informationally sensitive organisms" (Flanagan and Polger 1995: 321). Furthermore we have evidence, here and now, that experience does make a difference to the performance of many general tasks. For example, Weiskrantz's studies of various neurological deficits in *Consciousness: Lost and Found* provides a whole catalogue of cases which advertise the advantages of being experientially aware. Consider that even a self-prompting super-blindsighter would be no match for consciously aware subject in the majority of everyday tasks. Although it is amazing that blindsighted subjects are as sensitive as they are, despite their reported lack of experience, we must not forget that people with this

affliction, "...cannot avoid bumping into lampposts, even if they can guess their presence or absence in a forced-choice situation" (Dretske 1995: 121, cf. van Gulick 1989: 218-220, Marcel 1988). For although information about their environment can play a role in their voluntary actions, even self-prompting super-blindsighters would be employing a comparatively slower and more roundabout means of accessing such information than conscious subjects employ (cf. Van Gulick 1989: 220).

An earlier Flanagan answered this query by pointing out that, "...one might think that neither group would be favoured over the other. But if speed of processing mattered, and it almost certainly did and does, then the [Ψ] group would have been favoured" (Flanagan 1991: 321, cf. also 319–322). Of course it is also logically possible that the Φs, might have been faster. But it is just these kinds of 'might have beens' that the naturalist has no time for. If something like this story is correct, and experience has an evolutionary origin, then the Ψs simply were faster. In this light it becomes clear that Chalmers' why-question is badly formulated. It cannot be asked in logical vacuum. We need to consider a real context of a possible competition.

Moreover, since natural selection operates by means of variation, we should suspect that even if Ψs and Φs performed equally well across a specifiable set of parameters (by some spectacular chance), at some later point differences would emerge in their performances. Variation ensures that level-pegging does not occur for long. If Ψs and Φs were in competition and there was a real difference between them which Mother Nature could exploit, it would have. If this kind of evolutionary hypothesis is even roughly the right story to tell about our natural history, then the fact that we and our hominid competitors would have hailed from a common stock would also go some distance in explaining why our older systems of response, such as those of our hormonal systems and our autonomic and central nervous systems, provide unconscious informational sensitivities that far outstrip the range of our experiential sensitivities (cf. Flanagan 1991: 330, Dennett 1997: 103–106). For example, it is well known that we can be, and frequently are, subliminally influenced by all sorts of informationally loaded cues of which we are unaware.

To return to the main point, all we need in order to explain why consciousness emerged is that it conferred a competitive advantage and, *contra* Chalmers, there is every reason to think it did. In context, the why-question about consciousness is no more worrying than any other question about why evolution choose one path rather than another. Thus even if our fears about the possibility of physiological zombies cannot be laid to rest by general philosophical assurances, these naturalistic considerations should help. If one augments one's reductive ambitions, fear of zombies ought to vanish. If this is right, then residual worries about zombies will be essentially epistemological, not metaphysical. Recall that

genuine interpretation and triangulation presuppose that there is a relevant similarity between ourselves and the other. This is our basic assumption. But since this assumption is not a metaphysical guarantee, it is a real possibility that we might regard something as conscious, even if it is not. Our duplicity in such cases would not thereby show that the thing in question must be conscious. Hence, because they are real possibilities, however outlandish, behavioural and functional, zombies serve the useful purpose of frightening behaviourists and abstract functionalists.

In light of this discussion the right move appears to be that, rather than abandon or ignore experience because it resists capture in an abstract functionalist framework, we should adopt a more meaty version of functionalism – specifically homuncular teleofunctionalism. But, as zombie cases should have taught us, appearances can be deceiving.

2.3. From Functionalism to Physicalism

Having now dealt with the why-formulation of the hard problem, we must confront its how-formulation. The relevant question is now: How are experiences produced by neurophysical activity? But a fallout of the proceeding analysis is that any functionalist who takes experience seriously, be they of the abstract or homuncular persuasion, can only address the how-question by endorsing some form of explanatory materialism or physicalism. This may not be obvious so I will say how this result emerges with respect to the two major strands of functionalism.

As concerns abstract functionalism, it is important to bear in mind a point I emphasised earlier, which is that it is ontologically non-committal in the first instance. That is to say, abstract functionalists are not primarily concerned with issues of ontology. They need not take sides in the materialist-dualist debate (although they commonly do). Strictly speaking, the idea that experiences are nothing but the occupants of specific, formally characterised, functional roles is compatible with both a physical or non-physical characterisation of these occupants. The only *a priori* constraints on the proposed ontology is that whatever occupies the role is able to actually discharge the function in question. For example, certain earthly materials do not make serviceable drains because they are too porous. This is an empirical fact which rules out the possibility that we might construct a drain out of sponges. But many other materials might do. This matters because the ontological openness of abstract functionalism leaves it without the internal resources to address the how-question. For the only way to answer that question is precisely by making an ontological commitment. Metaphysical fence-sitting is not an option here.

Standardly it is hoped that it will be possible to graft abstract functionalism onto some explanatory form of physicalism, and, in this way, deal with the metaphysical problem. Indeed the fact that the doctrine can be so supplemented is regarded as one of its cardinal virtues. The fact that it is compatible with both type and token physicalism is what gives it the potential to be a scientifically credible position. Yet despite the possibility of being both an anti-physicalist and a functionalist, being a card-carrying abstract functionalist and a card-carrying physicalist are standardly not mutually exclusive activities. But this means that, for the abstract functionalist, solving the how-question depends on finding a workable version of explanatory physicalism. For only this would provide an intelligible account of the relation between the experiential and the physical.

Interestingly, the situation looks very different for the proponent of homuncular functionalism but the result is the same. This is because, in this case, there is no interesting distinction between this doctrine and physicalism. For example, if we take experiences at face value, then going down the homuncular teleofunctionalist road inevitably leads one to endorse some version of identity theory. Lycan, who is both a self-avowed realist about experiences and a principle architect of homuncular teleofunctionalism, is explicit about this. In the light of his arguments concerning the artificiality of any principled single function/structure divide in nature, he writes:

> ...the identity theory is just an empirically special case of functionalism, one that (implausibly) locates all mental states at the same very low level of institutional abstraction – the neuroanatomical (Lycan 1998: 59, cf. also 42).

Lycan's point is, barring practical quibbles about which level of functional analysis is appropriate in order to satisfy our questions about any given capacity, it is always possible to seek explanations of every level until we hit rock bottom. We can go progressively lower and lower down levels, rather like opening a set of Russian dolls. It is generally supposed that we only hit rock bottom when we reach the level of fundamental physics.

Although he is at pains not to overwork the analogy with computers in *The Intentional Stance*, Dennett's infamous example of the chess playing computer still provides perhaps the best illustration of a homuncular reduction. For it is a case in which higher level functions are carried out by simpler and simpler components until we reach a level where these can be made redundant by mechanical switches. This was meant to demonstrate that there need be nothing other than physical constituents in intentional systems, even though they can be described in more interesting ways from a higher level, predictive point of view. In this way commitment to homuncular teleofunctionalism generally entails a commitment to

physicalism. That is to say it entails a commitment to some form of identity theory. In defending his position, Dennett writes:

> We know that there is a purely mechanistic explanation of the chess playing computer, and yet it is *not false* to say that the computer *figures out* or *recognises* the best move, or that it *concludes* that its opponent cannot make a certain move, any more than it is false to say that a computer *adds* or *multiplies*. There has often been confusion on this score. It used to be popular to say, 'A computer can't really think, o[f] course; all it can do is add, subtract, multiply, and divide'. That leaves the way open for saying 'A computer can't really multiply, of course, all it can do is add numbers together very, very fast', and that must lead to the admission: 'A computer cannot really add numbers, of course; all it can do is control the opening and closing of hundreds of tiny switches' which leads to: 'A computer can't really control switches, of course; it's simply at the mercy of electrical currents pulsing through it'. What this chain of claims adds up to 'prove', obviously, is that computers are pretty dull lumps of stuff – they can't do anything interesting at all (Dennett 1987a: 64).

The homuncular teleofunctionalist is thus able to re-configure the how-question such that it avoids asking for a general account of *the* relation between the mental and the physical. For its advocates suggest that there is no single answer to the how-question, since there isn't a single how-question to begin with. Instead we are faced with a series of specific how-questions concerning particular capacities in certain types of organisms. Thus, in the hands of the homuncular teleofunctionalist, the hard problem is transformed into many easier problems. Their questions take the form: How is capacity x implemented by sub-processes of kinds y and z, in organisms of kind O? The only snag is that experience is not reducible to some form of capacity, however sophisticated, which is amenable to such objective analysis, without further ado. If not, we will be left with the idea that consciousness makes a difference, but we still won't know how.

3. What's the Matter with Explanatory Physicalism?

At base, physicalism is an ontological doctrine which holds that all genuine existing things are physical in nature, or in some way depend upon, or are generated by, or are composed of physical events, properties and their inter-relations. It can also be characterised as a doctrine concerning the structure of knowledge (Poland 1994: 10, 15). Although these two construals need not be at odds, it is crucial to distinguish those versions of physicalism that see it only as an

ontological thesis from those knowledge-based versions which accept that it carries an explanatory burden, however mild.

The explanatory project, which concerns reduction, must be pitched at the level of sense, not ontology. For if reductive physicalists really were interested in ontological reduction, they would be engaged in the strange project of breaking up higher order phenomena into smaller parts. To borrow Tim Crane's apt analogy, this would be equivalent to reducing a sauce. Thus it is potentially misleading for Moser and Trout to suggest that, "A primary goal of reduction is ontological unification" (Moser and Trout 1995: 191, A.D. Smith 1993: 228, cf. also Levine 1993: 134). The fact is that both reductive and non-reductive physicalists are already agreed about what there is and is not; they differ only in their commitment to the project of reducing *theories* of putative higher-order phenomena to *theories* of lower level, more basic phenomena. Thus reductionists are committed to a project of ontological unification only in the sense that, unlike non-reductionists, they believe it is possible to *demonstrate* ontological unity. This is a methodological ideal inherited from the positivists and the logical empiricists who insisted that such demonstration was an epistemological requirement for a truly unified science (Carnap 1934, Nagel 1961). As Poland puts it, "What is essential to this view is that science does not consist of any branches other than physics; the special sciences serve only heuristic purposes that in principle could be served by an ideally completed physics" (Poland 1994: 11).

A classic statement of the unity of science can be found in Oppenheim and Putnam's paper of the same name. Advanced in the form of an empirical hypothesis, the claim was that it is credible to believe that all higher order sciences might micro-reduce to the most basic science, microphysics, by means of bridge laws (Oppenheim and Putnam 1958: 5).[44] Their schemata is set out below:

Given two theories T_1 and T_2, T_2 is said to be reduced to T_1 if and only if:

(1) The vocabulary of T_2 contains terms not in the vocabulary of T_1.

(2) Any observational data explainable by T_2 are explainable by T_1.

(3) T_1 is at least as well systemized as T_2

Accordingly, on the traditional account, "One law, for instance, is reducible to another if the law targeted for reduction is logically derivable from laws in the reducing domain" (Moser and Trout 1995: 191). Today we are told that, "...the classical account of intertheoretic reduction....now appears to be importantly mistaken" (Churchland 1989: 47). This is because it demands too much with respect to cases of both diachronic, cross-theoretical and synchronic, inter-level reductions. With regard to cases of the first sort the traditional model proves

inadequate as a means of explaining theoretical development and change because the only rational change it can countenance involves nomological deduction. Thus it begins with the idea that past theories must be true. But clearly, if we want to understand what motivates scientific theory change, it is not a good idea to think of past theories as being strictly true. Nor is it clear what approximate truth comes to. I will argue these points more fully in chapter seven, section 4.

This widely recognised difficulty led many to suggest that the reductive project of physicalism is at best only concerned with issues concerning the structure of, rather than the growth of, knowledge (cf. Poland 1994: 10–11). But even if we restrict reductive ambitions in this way, the deductive-nomological model is still inadequate – at least when it comes to reducing discourses and conceptual schemes which operate with normative principles and those concerned with expressing how things look or feel. It is often postulated that if we had complete knowledge of physics and information about all the physical events occurring at a particular time, we could deduce from this how things stood in the past and how they will stand in the future. But even if we could, in principle, make such predictions concerning the states of the classical physical universe, it does not follow that we would be able to use such information to deduce or derive descriptions about how things stand in most other domains, with perhaps the exception of chemistry (cf. Churchland 1989: 51). The categories, criteria and taxonomy of most domains are incommensurable with those employed by the nomically-based sciences. Failure to recognise this fuels the intuition behind super-physicist fantasies. For example, according to Dennett, some materialists imagine the possibility of:

> ...Laplacean super-physicists capable of comprehending *the activity of wall street*, for instance, at the microphysical level. Where we see brokers and buildings and sell orders and bids, they see vast congeries of subatomic particles milling about – and they are such good physicists that they can predict days *in advance* what ink marks will appear each day on the paper tape labelled 'Closing Dow Jones Industrial Average'. They can predict the individual behaviour of all the various moving bodies they observe without ever treating any of them as intentional systems (Dennett 1987a: 25)

Of course, this is, at best, misleading science fiction. Consider that in Dennett's example, he rightly places great emphasis on the fact that if we adopt what he calls the physical stance toward *what is going on in the world*, we will of course miss out all the, "...patterns of human behaviour" (Dennett 1987a: 24). This is because super-physicists or Laplacean demons overlook everything which is not smooth enough to be nomically identified. For instance, although in the passage above Dennett says the super-physicists can predict the occurrence of particular ink marks on the New York stock exchange ticker-tape, he neglects to mention that these would not be recognised as such, *qua* ticker-tape or ink marks. These terms

are not a part of the vocabulary of pure physics (nor of any special science of which I know). For this reason, strictly speaking, these sorts of things would not be noticed, detectable or predictable by the super-physicist – at least not while the classificatory scheme of an ideal physics is all that is in play. In theory, a Laplacean demon can locate amongst its configurations all the nomically well-behaved entities, such as: planets, atoms, and chemical molecules. But it would have no means of locating such unsightly practical kinds as horses, trees, tables, and people *via* its powerful, but limited, nomological scheme. These ordinary things would be shapeless, hence invisible from the perspective of an ideal physics.

Moreover, a Laplacean demon would not be able to predict or derive mental descriptions from physical ones, even if it was a bi-focal deity. Imagine that it could see all the physical events taking place at time T_1, and given its impeccable knowledge of ideal physics, it could predict the next state of the physical universe at time T_2. Imagine it could also see, through another set of eyes, everything that was happening in the non-physical domain at the same time. Still, without a strict translation manual, it would have no means of making any predictions which would hold across these two domains. Put otherwise, unless there was a set of psychophysical laws to which it had access the demon would have no means of making such cross-theoretical predictions. If we imagine the demon could do this on the basis of its physical knowledge alone, then we must also imagine it could produce a set of psychophysical laws from what it knew of physics alone. But this is not remotely plausible.

Once this is recognised, it becomes clear why many of today's physicalists maintain that reduction ought not be thought of as requiring the strict deductive-nomological deduction of the terms of one theory to another (cf. Lockwood 1989: 130). Instead it is generally supposed that it is sufficient to achieve reduction if the 'image of the higher order theory', or more specifically its explanatory and predictive resources, can be preserved by the lower level theory (Churchland 1989: 49, cf. also 153–154). Still there are those who regard even this demand as being too quasi-Nagelian in spirit (cf. Smith 1992: 28–29, 33–35). They claim it is possible to opt for even softer versions of inter-theoretical relations, without abandoning a modest unity of science thesis. For example, some accounts only insist that there be explanatory links of some kind between the different theoretical levels (Papineau 1992: §6). In considering these possibilities, we can see why explanatory physicalism comes in various strengths, as diagramatically illustrated in Figure 8.

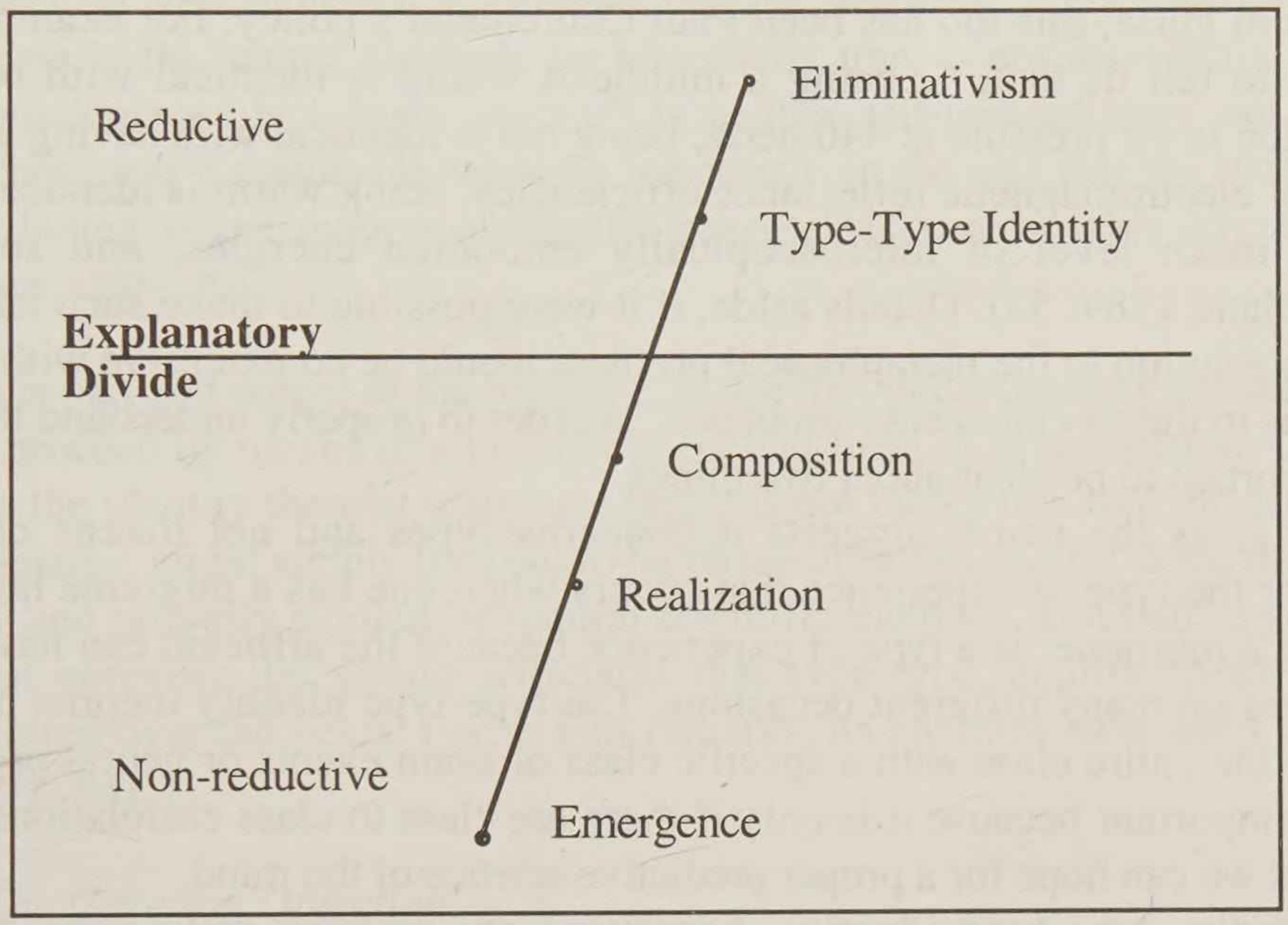


Figure 8. *The spectrum of explanatory positions*

Interestingly the explanatory burden is different but just as heavy at either end of the spectrum. This may not be entirely obvious. For example, it may be thought that the eliminativist has no explaining to do since they deny that conscious episodes exist. Nevertheless, to make their position convincing, they must provide an explanation of why experiences appear to exist if they are to successfully explain them away. On the other hand, those who opt for some form of non-reductive emergentism must struggle to explain how their account is compatible with physicalism. In the end, all forms of explanatory physicalism unavoidably fall victim to the metaphysical problem in different ways. In what follows I focus on the problems which confront both the strong and weak versions of explanatory physicalism. In doing so, rather than attempting an inelegant survey of every possible position, I summarily discuss the difficulties inherent in the familiar accounts which are representative of the main positions of both camps.

3.1. Reductive Physicalism

Adherence to the classical vision of law-like reduction encourages adoption of the strongest form of type-type mind-brain identity theory, as proposed by philosophers such as Smart and Place. They claimed it was possible to make a straightforward literal identification of mental events with brain events. In the earliest version of this doctrine, types of mental event – such as experiences of red – were to be identified with specific types of brain state – such as C-fibre firings.

In modern guise, this too has been Paul Churchland's policy. For example he is content to tell us that, "...being a middle-A sound is identical with being an oscillation in air pressure at 440 hertz; being red is identical with having a certain triplet of electromagnetic reflectance efficiencies; being warm is identical with a certain mean level of microscopically embodied energies, and so forth" (Churchland 1989: 53). Details aside, if it were possible to make such identities, then the solution to the metaphysical problem would be co-extensive with finding solutions to the so-called easy problems. In order to properly understand this view it is important to be clear about two things.

Firstly, as the name suggests it concerns types and not tokens of types. Consider the type of experience that occurs when one has a migraine headache. 'Having a migraine' is a *type* of experience because the afflicted can have token migraines on many different occasions. The type-type identity theorist hopes to identify the entire class with a specific class of brain events or neural processes. This is important because it is only if there are class to class correlations of this kind that we can hope for a proper predictive science of the mind.

Secondly, type-type identity theorists draw a sharp distinction between conceptual statements of identity, which are based on definition, and merely contingent, compositional statements of identity (Place 1956: 30–31, Smart 1959). Place makes this point by drawing a distinction between the 'is' of definition and the 'is' of composition. He writes:

> The distinction I have in mind here is the difference between the function of the word 'is' in statements like "A square is an equilateral triangle', "Red is a colour", "To understand an instruction is to be able to apply it under the appropriate circumstances" and its function in statements like "His table is an old packing case", "Her hat is a bundle of straw tied together with a string", "A cloud is a mass of water droplets or other particles in suspension" (Place 1988: 30–31).

Thus analytic statements of identity such as, 'The Prime Minister is the Queen's first minister' – which are true by definition – are contrasted with those such as 'The Prime Minister is Tony Blair' – which may or may not be true. The point is that discovery of whether or not a contingent statement is true, requires empirical investigation – it cannot be deduced. The standard example of an empirically discoverable statement of compositional identity is, 'Lightning is the motion of electrical charges'. The fact that psychophysical claims of identity are contingently discoverable is precisely what holds out the promise of possible inter-theoretic reduction. For the truth of such identity claims is neither obvious nor self-evident. It is important to be clear about this. Consider Place's remarks. He writes:

> What I do want to assert, however, is that the statement "Consciousness is a process in the brain," although not necessarily true, is not necessarily false. "Consciousness is a brain process" is neither self-contradictory nor self-evident; it is a reasonable scientific hypothesis, in the way that the statement "Lightning is the motion of electric charges" is a reasonable hypothesis (Place 1988: 30).

This is part and parcel of the naturalist claim that understanding consciousness cannot proceed by means of a purely conceptual form of investigation. On these grounds the identity theorist maintains that it is not incoherent that the essence of consciousness might simply turn out to be physical in nature. If it does, then it can be fully and properly studied by natural scientific methods. But before going on, we must consider the strong criticisms that type-type identity theories have encountered over the years. For as Hill remarks, its enemies have been busy (cf. Hill 1991: 84).

3.1.1. The Criterion Objection

One serious concern is methodological. For we might wonder: How could we confirm or disconfirm the scientific hypothesis that consciousness is a brain process? Critics have pointed out that identity theorists would need to form their initial hypotheses by deferring to our homespun criteria for the ascription of experiences. However, given this, they are likely to have difficulty in both testing and maintaining specific hypotheses. This is because it is reasonable to suppose that there might always be discrepancies between what the neuroscientist tells us ought to be going on in the subject's consciousness and what the subject says is going on. For example, we can easily imagine that characteristic neural activity might suggest that the subject is experiencing red, even if they claim to be seeing green. This kind of discrepancy cannot be ruled out since subjects and neuroscientists would be employing very different means of identifying the experiences. The question in such cases is: Who has the final word? How should we adjudicate in the case of a dispute? Should we revise or abandon the particular statement of identity or should we overturn the subject's verdict? The problem is that the occurrence of a particular kind of brain activity offers no guarantee that a subject will be undergoing a particular type of experience (cf. Malcolm 1986, Hill 1991: 84–85). The identity theorists' standard reply is that such scenarios are merely hypothetical and that the real occurrence of such conflicts is an entirely empirical matter. Like all good naturalists they are happy to take the risk.[45]

I will not press the issue further here. Instead I want to point out that, whatever one thinks of this reply, it is interesting to note that the very possibility of such cases reveals that the psychophysical identity theory does not deliver all of its implicitly advertised features. For example, a key reason why such identity

theories seemed better placed to deal with experiences than was behaviourism or functionalism, was because they allegedly salvaged the notion of the inner while, at the same time, endorsing a purely third-personal form of analysis. Yet, in light of the above objection, we can see that the claim to be the saviour of the inner is at best misleading and at worst completely false. The identity theorist's notion of the inner is only such because brain activity is obscured by the cranium. But this notion of the inner is nothing remotely like that defended by introspectivists or dualistic philosophers. It is only inner because we do not wear our neurology on our sleeves.

3.1.2. The Multiple Realizability Objection

Historically speaking, the most persuasive critique of type-type identity theories has hailed from philosophers who accept the possibility of psychophysical identity but who also believe that the empirical evidence has simply shown that strict type-type identities will not be forthcoming. It is now commonly thought that many psychological episodes can be realised by disparate types of neural activity and that it is impossible to obtain isomorphic correlations between classes of events in the two domains. The best we might get from such attempted psychophysical identifications is a potentially infinite chain of disjunctions on the physical side of the equation. This is the multiple realisation objection. It has more than one pillar of support.

For instance, biology reveals that there is an enormous stock of terrestrial creatures which may be capable of experiencing, despite the fact that they lack a physiology similar to our own. Not all creatures who might be plausibly counted as having a capacity for pain have C-fibres, central nervous systems or brains like ours. Thus, as Dennett reports, in 1986 the British government added octopi to its list of animals to be protected from experimentation, on the grounds that such creatures might be capable of experiencing pain. This went through despite the fact that, "An octopus is a mollusk, physiologically more like an oyster than a trout (let alone a mammal)..." (Dennett 1997: 124). The point is that if octopi did feel pain, this would throw cold water on the hope of our locating any neat, cross-species one-to-one correlations between particular types of experience, such as pain, and particular types of neural states (cf. Putnam 1963, 1967b). This objection is a special case of Block's claim that the meatier versions of functionalism face problems with respect to chauvinism.

Nevertheless type-type identity theorists have a ready avenue of reply. They can plausibly claim that although the higher kind of pain is disjunctive, specific sub-types might be realised, in a species-specific way, by particular kinds of brain state. Thus, if octopi feel pain when they are in physiological state Ω, their experience of pain differs from ours precisely because we experience pain when

we are in a neural state of type α. Still different types of pain might be identified with different types of physical states. This is consistent with the claim that it might be realised by a specific type of state in particular types of organism.

This response has *prima facie* plausibility. But the biological cases are not the only cases of multiple realisability. For example, as our knowledge of the operations of the brain has grown, it has become transparent that the same neural structures can underpin very different types of psychological activity. For example, some patients who have had hemispherectomies – in which the cortex of one hemisphere is removed – have been known to restore some normal functions which standardly depend on the missing part of their brain. They manage this by enlisting the other part of their brain. Thus, if the left hemisphere can no longer perform its normal language tasks, the right hemisphere sometimes takes them over. In the light of such cases it is unlikely, to say the least, that there are uniquely dedicated neural configurations for specific tasks. Indeed, Edelman has suggested that the brain regularly configures and re-configures itself in response to stimuli by a parallel process of re-entry neural mapping (cf. Edelman 1989, 1992). Without going into detail, if Edelman is right, the neural pathways that underpin experience are very flexible, even to the extent that they are open to re-wiring in specific individuals and the same individual over time. This would be enough to show that the tight correlations postulated by the type-type identity theorists are unrealistically optimistic, even when the scope of the thesis is restricted to sub-types of experiences relative to species and individuals. In this light, type-type identity theories appear overly ambitious on empirical grounds.[46]

But it may be thought that this objection rests on thinking that the identity theorist is committed to a rather unsophisticated vision of the neural types in question. For we need not think of these as stable entities, such as C-fibres. They could be fine-grained postulates such as complex neural configurations as individuated by specific spiking frequencies with unique inter-neuronal connections. If we look to modern neural network theories, it is clear that the sophisticated identity theorist has vast resources at their disposal by means of which to propose much more interesting kinds of identities. Consider Flanagan's succinct summary of the world of neural activity. He writes:

> There are three main types of neuron, differentiated by their involvement in various kinds of activity: sensory neurons, motor neurons, and interneurons....When a depolarization pulse (an 'action potential' or 'spike') runs down an axon, it causes release at the bulbs of its characteristic neurotransmitter, for example, acetylcholine, dopamine, serotonin, noradrenalin. Depending on the neurotransmitter released and those on the other end, this pulse will serve to excite or inhibit the synapse by creating a positive or negative charge. Neuronal cells are almost always jittering. A spike

is simply a powerful jitter, a jolt. A second determinant of neural behaviour other than depolarization itself is frequency of depolarization....Neurons jitter in ensembles, in populations of 5 to 50 layers (as many as 100 layers in certain cases). The jitters of these neuronal groups (comprised of 50 to 10,000 neurons each) are determined not only by the activation occurring at the sensory periphery but also from projections from next-door neighbours....A typical neuron has synaptic connections emanating from on the order of 3,000 other neurons....That would make for on the order of 10^{14} distinct possible synaptic connections (Flanagan 1991: 315-317).

The point is that, if experiences were to be identified with specific spiking frequencies and certain wider patterns of connection, this would be consistent with the fact that each brain is individually soft-wired. Moreover, given that there is some reason to think that, in the case of sensory experience, there is only a limited capacity for neural re-wiring, this may go some way to restore some faith in the type-type identity theory with respect to experiences, at least (cf. Flanagan 1991: 332, 335, Weiskrantz 1997: 82). For the sophisticated identity theorist is on more secure ground, if we restrict ourselves to consideration of characteristic, species-specific spiking frequencies alone. But even if this goes some way to tame the multiple realisation problem, it remains an open question to what extent the relations in question will turn out to be one-to-one rather than one-to-many.

What is clear is that the very possibility of multiple realisability has been enough to encourage the less ambitious adoption of an explanatorily empty token materialism. The token materialist avoids the problem of multiple realisation while retaining the idea that contingent statements of compositional identity are live possibilities. They simply deny that there are – or ever will be – isomorphic type-type identifications of psychological phenomena with their physical bases. Accordingly it remains theoretically possible to make psychophysical identity claims, even if they are explanatorily empty, domain relative, disjunctive and retrospective (cf. Lennon and Charles 1992: 7).[47]

3.1.3. The Intelligibility Objection

The real problem with psychophysical identity theories, be they type or token, concerns the problem of making such identifications intelligible. It is important to disentangle different versions of this charge. Some philosophers object that psychophysical identifications are unintelligible because they violate Leibniz's Law, which insists on the non-identity of discernibles (cf. Lycan 1972, Searle 1992: 38–40). On their view, it makes no sense to say that a pain is the firing of a C-fibre, given that pains and C-fibres share no essential properties in common. They claim it is reasonable to suppose the truth of this since such terms cannot be

sensibly substituted for one another in relevant sentences, without loss of meaning.

The problem with this objection is that intensional inequivalence alone does not rule out the possibility of extensional equivalence. At best it provides only a *prima facie* reason to deny extensional equivalence. The fact is that life is full of cases in which we mistake a single thing for two separate ones because we have been mislead by different appearances, names or descriptions. This mundane possibility is all the identity theorist requires in order to advance their position. Recall that they are not making definitional statements of identity, but rather contingent statements of compositional identity. Hence, as stated, the above objection misses its mark. There is nothing more intrinsically absurd in claiming that certain kinds of psychological processes might turn out to be certain kinds of neural processes than there is in claiming that 'the Morning star' and 'the Evening star' happen to be one and the same planet – Venus. In neither case is the identity immediately obvious or even self-evident (cf. Smart 1991: 171, Lockwood 1989 125–127). Churchland is right to claim that we mistakenly believe that there is a special problem with respect to consciousness in this domain because we fail to recognise that, "...our mechanisms of sensory discrimination....opaquely discriminate" (Churchland 1989: 30). Once we remove this confusion, there is no reason not to accept that various conscious experiences might just be physical events, states or processes, as seen through a glass darkly. The fact that we do not immediately recognise the real nature of things is just as true with respect to introspection as perception.[48] Nothing about introspection reveals the putative fact that an experience of searing pain is nothing other than a particular neuronal spiking frequency of, say, 60 hertz (cf. Churchland 1989: 30–31). Both Lycan and Papineau have alerted us to the mistake of thinking otherwise. They respectively label this error the stereoscopic and the antipathetic fallacy.[49] Of it Lycan writes:

> Sometimes antimaterialist intuitions are formulated as a kind of failure of stereoscopic vision, as follows: With one eye, so to speak, we look at the gray, cheesy brain of someone who is in fact having (say) a visual impression of blazing red. With the other eye, we vividly imagine seeing blazing red ourselves. The two images do not match; they are totally different, totally incongruous! How then could seeing blazing red be a matter of unobtrusive goings-on in one's cheesy gray stuff. Preposterous (Lycan 1988: 76).

The point is that we cannot presume that because our modes of presentation are irreconcilably different that they do not in fact refer to the same thing. Those who think that this kind of argument refutes physicalism have simply failed to see that, as standardly advanced, it is an abuse of Leibniz's law. That law states that if two things do not share all their properties in common then they cannot be identical. It

does not state that if two things do not *appear* to share their properties in common that they cannot be identical. For this reason, as Hill observes, the general moral is that, "...it is fallacious to combine Leibniz's law....with sentences that are concerned with psychological states" (Hill 1991: 85).

This is correct if we are concerned with objects of reference, as opposed to the way in which the objects present themselves. But it is precisely here that monsters lie in wait for materialists. In isolation such bald assertions of putative identity do not deal adequately with the metaphysical problem. For that problem does not stem from a simple unwillingness on our part or blindness on the part of the friends of qualia, to accept that experiences are really nothing other than physical events or processes 'opaquely discriminated'. The problem is that experiences are members of the species, modes of presentation. Stephen White has emphasised this point in his argument concerning property dualism. He writes:

> The general principle is that if two experiences refer to the same object, and this fact cannot be established *a priori*, they do so in virtue of different modes of presentation of that referent. These modes of presentation of the object fall on the object's side of the language/world dichotomy. In other words they are aspects of the object in virtue of which our conceptual apparatus picks the object out; they are not aspects of the conceptual apparatus itself. Hence the natural candidates for these modes of presentation are properties...(White 1997: 706).

What White's argument shows is that once we recognise that experiences are kinds of modes of presentation, then the materialist is faced with an apparent option; explain them or explain them away. It is only an apparent option because the eliminative materialist cannot simply explain them away. If one admits that experiences exist, even as modes of presentation, then they must be accounted for. Even Churchland has recognised that, in order to accuse his opponents of falling foul of the stereoscopic fallacy, he must admit the contrast between our scientific descriptions of things and cases in which we detect the same things by means of nonlinguistic, "*...modes and media of representation*" (Churchland 1989: 63). Now, either these nonlinguistic modes and media have an experiential aspect or they do not. If they do, it must be accounted for. If they do not, then we are owed an explanation of their nature which would account for the fact that they *appear* to have such an aspect. And so they still must be accounted for. Nor will it do to say that experiences are mere appearances, hence not real, and leave it at that. Long ago Bradley succinctly explained why this move doesn't work, when he wrote, "For nothing is actually removed from existence by being labelled 'appearance'. What appears is there, and must be dealt with; but materialism has no rational way of dealing with appearance" (Bradley 1930: 12). There is no escape.

But, as modes of presentation, experiences have special properties that make it impossible for the materialist to deal with them. For once they recognise their legitimate existence, they retain the burden of making sense of them. In rejecting the strong representational thesis in chapter two, section 3, we have already seen that it is simply not possible to agree with Lycan that:

> To sense or feel is to sense something under a representation. And a representation is cognate with a Fregean sense....Unsurprisingly, different representations differ functionally or computationally from each other even when they are representations of the same thing....[Hence,] to 'know what it is like' to have such-and-such a sensation is likewise a functional rather than a referential matter (Lycan 1998: 80).

Nevertheless, Lycan is right to think that modes of presentation cannot just be identified with real, objective properties of objects (cf. Hill 1991: 101). My rejection of this idea is a crucial source of disagreement between White and myself. Modes of presentation cannot fall on the object side of the subject-object divide. Hence, it is not possible to regard experiences as properties of objects. This is primarily due to the fact that modes of presentation logically imply a subject to whom they are presented. I will argue this case further, and in more detail, in the next chapter.

Now we are in position to see the strongest reason for rejecting psychophysical identity theories. It involves the intelligibility problem. For the sake of argument, let us suppose that there is a perfect isomorphism between certain types of experiences and certain types of brain states. Would this fact entitle us to conclude even the probable truth of materialism by means of an argument from inference to the best explanation (cf. Flanagan 1991: 336)? Hill argues that we can. He writes:

> Suppose, for example, that conscious experiences of a certain kind Φ turn out to be correlated with brain processes of kind ψ. Surely, if someone were to ask for an explanation of this correlation, it would be perfectly appropriate to respond by saying "The correlation obtains because being a conscious experience of type Φ is the very same thing as being a brain process of type Ψ." (Compare: "Miss Lane, why does Clark Kent always turn up in the same places as Superman?" "Because, Jimmy, Clark is Superman" (Hill 1991: 24))

There is of course nothing wrong with this kind of abductive inference in most cases. But it is vital to note that standard Fregean name cases always rest on the background intelligibility of Φ possibly being Ψ. That is to say, in order for the identity claim to be convincing, it must be shown that Φ and Ψ are really the same

kind of thing – for example; a planet, a person, an event and so on. What makes an identity claim the best explanation of a correlation is that we are able to explain away the appearances. Hence we standardly need to do some independent work if we are to supply a reason to believe in an identity claim, over and above the mere fact of noting perfect correlation. For how would Jimmy come to discover that Clark and Superman are one and the same and hence always co-present. It appears that when Clark is there, Superman manifestly isn't. They don't appear to be anymore co-present than the Morning Star and the Evening Star. The best way of making the identity claim stick is to discredit these appearances. In doing so, we have to make it intelligible that these two seemingly different things could share all the very same properties. We break down Jimmy's resistance by showing him that Clark can fly, that he changes into Superman's tights, that he reacts badly to Kryptonite in close proximity, and, of course, we take off his spectacles. In a similar way, to make a credible case for psychophysical identity, the materialist must explain how Φ and Ψ could share the same properties and be the same type of thing. This is their burden. But the materialists have nothing positive to offer on this front.

Note that my objection is not, as Papineau anticipates, that materialists have failed to explain the relation of correlation between Φ and Ψ, for if they are indeed identical then there is no such relation. He is right to say, "...the physicalist should simply deny that there are two properties here....it doesn't make sense for them to ask: why were Mark Twain and Samuel Clemens the same person? If they were, they were, and there's and end on it" (Papineau 1993b: 179–180). But the materialist case is not yet at this advanced stage. If the names Mark Twain and Samuel Clemens seemingly refer to different kinds of thing – one to a living person, one to a fictional character – we would be entitled to ask how could they possibly refer to the same entity. Properly expressed, the objection is: to make their identity claims credible in the first place, the onus is on the physicalist to deal with the appearances in some way. Once again, they must either explain them or explain them away.

So far I have argued that the reductive physicalist cannot explain them. They leave too many important questions unanswered about the reality and nature of such appearances. In particular, they give no answer to the puzzles concerning their subjective nature, such as: Why do experiences feel as they do? Who's doing the feeling? How is this managed? What then are the prospects of explaining away the appearances?

3.2. Eliminativist Physicalism

Eliminativists hope to get us to revise or re-configure our understanding of consciousness so that it becomes more digestible to the methods of reductive

materialism. This requires giving attention to the phenomenology problem. Dennett is the prime architect of this style of approach. For example, in his paper "Quining Qualia" he attempts to discredit both the ordinary and the standard philosophical account of experience. He attempts this by devising fifteen intuition pumps designed to show us that our concept of qualia is confused; so confused that the only thing we can say is that, "...there simply are no qualia at all" (Dennett 1990a: 544).[50] More recently in *Consciousness Explained*, he has tried again to get us to abandon our everyday, but philosophically loaded, picture of consciousness, which he claims derives from Descartes. But this time, in return, he offers us a new metaphor for consciousness; the multiple drafts model (cf. Dennett 1991a: 455).

The multiple drafts model identifies consciousness with our ability to generate a coherent text concerning our putative mental episodes. Heterophenomenology is the name he gives to this intersubjective activity of text generation. While engaged in it, we, as interpreters, effectively allow the subject to verbally describe to us the nature of their experiences. In this way the subject generates a text about a notional world. On the whole, we give them authority concerning the nature of that world and what is found in it. Such notional worlds are analogous to fictional worlds, such as Sherlock Holmes' London (not the *real* London).[51] In being of a like nature to such fictional worlds, "The subject's heterophenomenological world will be a stable intersubjectively confirmable theoretical posit..." (Dennett 1991a: 81). For Dennett, interrogating such texts is our best, perhaps only, means of neutrally analysing the reports of ourselves and others about what is going on 'in our minds'.

The texts which are generated in these circumstances, and not something above and beyond to which they refer, constitute consciousness. For this reason we need take the experiences described in them no more seriously at the level of ontology than we would Professor Moriarty or the hound of the Baskervilles. Accordingly, experiences are treated as nothing over and above the reports we give, judgements we make, and beliefs we hold. In this way consciousness is eliminatively reduced to the intentional.[52] Our ability to generate detailed, coherent serial reports is what constitutes our streams of consciousness. James Joyce's *Ulysses* is the model. If we accept this reduction – Dennett's solution to the phenomenology problem – then the metaphysical problem simply becomes that of explaining how the brain is able to make such reports.

For we won't have explained consciousness until we give a naturalistic account of our ability to produce coherent speech acts which purportedly act as expressions of our experiences. He believes that, "Only a theory that explained conscious events in terms of unconscious events could explain consciousness at all" (Dennett 1991a: 454). But notice his task is no longer to explain qualia *per se*, rather it is to explain how our talk about our conscious lives is produced by

underlying sub-systems. Thus he hopes to give an ontogenetic explanation of how those sub-systems were formed and an account of how they work. The essence of his proposal is captured in the following remark, "I am suggesting conscious human minds are more-or-less serial virtual machines implemented – inefficiently – on the parallel hardware evolution has provided for us" (Dennett 1991a: 218).[53] In line with the heterophenomenological project he calls the virtual machine that gives rise to consciousness a Joycean Machine. He is very clear about this and at one point makes the intrepid remark that, "If consciousness is something over and above the Joycean machine, I have not yet provided a theory of consciousness at all" (Dennett 1991a: 281).

I have already argued in chapter one, section three that this kind of conceptualist reduction will not wear. However, before concluding this discussion, I want to note an important consequence of Dennett's approach which has been a major source of disillusionment for his readers. That is to say, since Dennett does not believe that the Joycean software is built-in, he is prepared to argue that it is the result of cultural design. He tells us that consciousness is, "...largely a product of cultural evolution that gets imparted to brains in early training..." (Dennett 1991a: 219). But his critics regard this as an admission that non-verbals are incapable of having experiences. Thus, as Fellows and O'Hear point out, "...an immediate reaction to the virtual software aspect of the multiple drafts model might be to say animals and human infants seem to be conscious perfectly well without the mediation of any culturally acquired 'software'..." (Fellows and O'Hear 1993: 80, cf. also Bricke 1985, Lockwood 1993). The way Dennett jumps in response to this sort of criticism is instructive because he vacillates uncomfortably.

Sometimes he concedes the possibility that consciousness might obtain even without a full-fledged Joycean text. For example, he allows that, "Heterophenomenology without a text is not impossible, just difficult" (Dennett 1991a: 446). Hence he has been driven to sketch the kinds of transformations that would be required in order to understand a bat's notional world, as discussed in the previous chapter (Dennett 1991a: 444, cf. also Radner 1994). At other times he makes a more dismissive reply to the question about whether or not non-verbals are conscious. He writes, "I agree; they seem to be. But are they? And what does it mean to say that they are or they aren't?....I claim that this question has no *clear* pre-theoretical meaning" (Dennett 1993: 147, emphasis original). His response here is that our folksy intuitions regarding animal and infant consciousness are not sacrosanct.[54] This is the crux of the matter; he doesn't feel we can make any pre-theoretical sense of our shared intuitions about conscious experience or its ascription. But it is this very demand for such an intellectual standard that I believe is unwarranted, as I have already argued in chapter two, section two.

What is interesting is that the common thread to both responses is that we must not surrender, at any cost, the streamlined and principled criterion for the ascription of experience, as provided by heterophenomenology.[55] A return to our rag-tag intuitions on this score could potentially lead to the admission of all kinds of nonsense and a re-vitalisation of the perplexing paradoxes surrounding consciousness. The price we must pay for adopting this neat criterion is that we must jettison some of our most deeply held intuitions concerning the nature of experience. On these grounds alone, for all its ingenuity, Dennett's attempted reduction of consciousness to heterophenomenological reporting is deeply suspect. Thus, despite the fact it is quite simple to state, the standard objection still holds. Functionalists and their physicalist allies fail to deal squarely with the essence of experience. They leave out the most important aspect whenever they describe our sentient responses to the world. This is what we call conscious experience. Consciousness has yet to be either explained or explained away. At best it has been avoided.

3.3. Non-Reductive Physicalism: The Soft Option

Yet not all materialists or physicalists fail to do justice to experience. Or, more precisely, not all of them rule out the possibility of treating it in its own terms. Several non-reductive physicalists have attempted to explicate the relation between experiences and their physical bases in terms of the softer notions of composition, realisation and emergence (or a combination of these), while simultaneously, as the name implies, abandoning any attempt at reduction. The motto of physicalists of this stripe is: Genus: *physical*, Differentia: *mental*

David Charles describes the position of compositional physicalism as concerns its ontological commitment. He writes:

> ...physicalist intuition [which] is expressed by a certain ontological thesis: the physical is what the mental is *composed of*. The physical constitutes the basic building blocks of the universe, and everything is *made up from these* (Charles 1992: 274, cf. Heil 1992: ch. 3).

We have already reviewed and rejected the reductive physicalists' explanatory version of the compositional claim as it concerns conscious experience. But what does composition mean to non-reductive physicalists? Put otherwise, the question is: How can we non-reductively explain the fact that irreducible higher order properties are made up of or realised by physical building blocks? There is no clear answer to this question. As Papineau says of non-reductive realisation, "There is no agreed analysis of this notion, however: philosophers tend to use it more freely than they explain it" (Papineau 1993a: 24, cf. also Tye 1996: 40-42,

Melynk 1997: 390–395). In a bid to redress this, he offers the following definition:

> In order for a mental or other special type M to be realized by an instance of some physical type P, M needs to be a s*econd-order property*, the property of having some property which satisfies certain requirements R. And M will be realized by P in some individual X if and only if this instance of P satisfies requirements R. In such a case we can say X satisfies M *in virtue of* satisfying P (Papineau 1993a: 25, emphases original).

But if realisation is supposed to indicate a non-reductive relationship between higher and lower order properties, it is likely best understood in terms of emergence. The idea must be that there are non-reductively emergent, but nevertheless physical properties, in precisely the sense which Churchland abhors (cf. Churchland 1989: 51). Although increasingly popular, this kind of non-reductionism offers nothing by way of a serious resolution of the metaphysical problem. To be credible, it must explain how the non-reductive notions of composition, realisation or emergence are at peace with physicalism, as opposed to giving us positive reason to abandon it. I do not believe it is possible to square this circle. In what follows, I hope to demonstrate that, to the extent that they refuse to compromise the subjective character of experience, non-reductive approaches necessarily fail to provide a coherent account of the physical.

3.3.1. Emergentism

Searle is optimistic about being a faithful physicalist whilst giving consciousness its due. In fact, he claims that there is a simple solution to the mind-body problem which has been staring us in the face for some time (cf. Kim 1995: 189). The simple solution is one that Searle has been proposing for a number of years. It is the view that conscious processes, "...are as much a part of our natural history as digestion, mitosis, meiosis or enzyme secretion" (Searle 1992: 1, cf. Searle 1984: 25). In fact, he tells us, consciousness is, "...a biological feature of certain organisms in exactly the same sense of 'biological' [as the above named processes]..." (Searle 1992: 1). Yet he allies himself with the non-reductive physicalist camp by saying things like, "...one can accept....that the world consists entirely of physical particles in fields of force – without denying that among the physical features of the world are biological phenomena, such as inner qualitative states of consciousness..." (Searle 1992: xii).

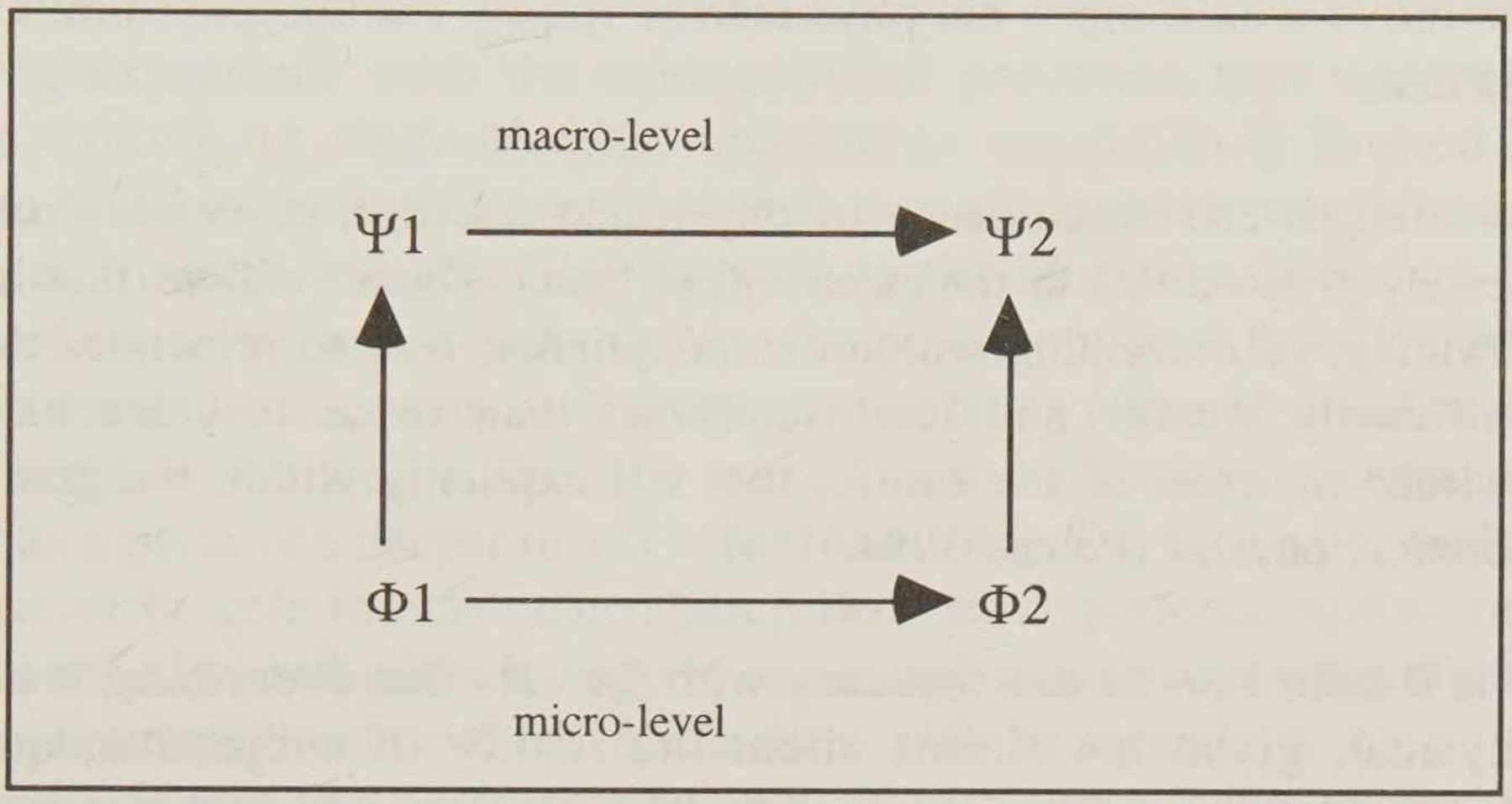


Figure 9. *Searle's schema of micro and macro causation*

But by using the language of physicalism in this way he invites confusion. For we might legitimately wonder how and why our psychological states manage to be conscious merely in virtue of their alleged cerebral locale and biological nature. These are questions to which Searle provides no detailed answers from within the biological domain and it is clear that, unlike other naturalists, he is not interested in using biology as a means of defining the limits of the mental. Instead, he consistently appeals to a general schema which is designed to show how mental phenomena are caused by and realised in the brain (cf. Searle 1984: 21–23).[56] His claim is that there are micro and macro levels in nature and that causation operates between and across these levels. Thus to use his own example, liquidity is causally produced by the behaviour of H_2O molecules and it interacts causally with other macro-sized things in its surround, in virtue of its micro-structure.

But orthodox physicalists are rightly sceptical about the notion of causation which operates in this account (cf. Kim 1995: 193–194). For example, Kim claims that Searle's 'horizontal causation' sponsors a confused kind of over-determination and that his so-called 'vertical causation' is synchronic and hence does not allow for the necessary time gaps which are required for causation. In response, Searle has emphasised that his notion of causation is not the old style Humean sort. There is nothing intrinsically wrong with such a reply, but it does raise the question: How can one marry such an unorthodox account of causation with physicalism as standardly conceived? Or more pointedly: Why would one wish to? For this reason, it isn't clear what kind of physicalism Searle is espousing. Perhaps it comes to nothing more than an endorsement of the claim that, "...if we are going to call anything that is made up of physical particles physical; then, trivially, everything in the world is physical" (Searle 1992: 26).

But this move would make his physicalism empty. For the problem, as Poland notes, is that:

> The strength and significance of physicalist doctrine is, *ceteris paribus*, inversely proportional to the extent of its bases. Those versions that include everything, or everything within natural science, lead to principles that are significantly weaker and less significant than those that are narrowly construed in terms of the entities that fall explicitly within the domain of theoretical physics (Poland 1994: 114)

Nor is it clear how he can rest easy with the idea that everything is ultimately just physical, given his claims about the reality of subjective, qualitative experiences. In this light it is ironic that although Searle is right to think that the main difficulty with respect to the mind-body problem lies with the standard metaphysical assumptions we make, his own account and its entrenched language reveals that he has not freed himself from the power of such assumptions.[57]

3.3.2. Non-Constructive Naturalism

McGinn is another nonreductive physicalist who vacillates in his understanding of the physical. In places, he takes a conservative, hard-nosed line on how to understand it. For instance, he rules out the possibility of a constructive, scientific account of consciousness from the start by insisting that the relations traditionally relied on to do the work, be they causal or teleofunctional, are only as natural as the kinds they relate (McGinn 1991: 49–58). His reasoning rests on the idea that as consciousness is essentially non-natural in character, there can be no real possibility of a scientific account of it in traditional terms. Standard naturalistic attempts overlook the fact that the topic-neutrality of relations of causation and identity make it look as if we could naturalise consciousness, while at the same time, this very aspect of these notions guarantees that we cannot.[58] For being topic-neutral, such relations can relate things both natural and non-natural (cf. McGinn 1991: 57–58). Therefore if one claims to have naturalised consciousness by finding a causal role for it, McGinn will point out that this is only to link an unnatural kind, conscious experience, with some physical natural kind or kinds. Likewise with respect to identity.

Despite this he goes on to propose a much more modest form of naturalism which maintains that consciousness is a perfectly legitimate natural phenomenon even though we are cognitively closed to understanding how it could be so (McGinn 1991: 47). The reason we are cognitively closed to explaining it is because our top-down attempts to understand the link between experience and the brain are impeded by the limits of introspection. In other words, there is nothing

from within introspection that provides us with any means of intelligibly connecting experience with the neurophysical processes that underwrite it. Likewise, bottom-up neuroscientific approaches are similarly limited by the perception-based methods they employ; hence they are unable to reach the arena of experience. Nevertheless, McGinn appeals to the idea that there is a hidden structure of consciousness which explains the psychophysical link. The problem is that this missing link cannot be characterised as being either physical or mental. Thus he suggests, the hidden structure must, "...exhibit both [the mental and the material] as aspects of a deeper reality" (McGinn 1991: 82). Given our limitations, we will never be able to make the relation between experience and its material substrate perfectly intelligible. In support of his aspectualism, he is therefore led to postulate a noumenal reality which he identifies with the natural.

Ignoring some of the contentious details of McGinn's views on perception-based epistemology, I have some sympathy with the structure of his position. Nevertheless it is hobbled by its allegiance to physicalism. For despite telling us that the noumenal is natural, he also tells us that, "Naturalism in the philosophy of mind is the thesis that every property of mind can be explained in broadly physical terms" (McGinn 1991: 23). Given this, we wind up with the idea that the noumenal, the natural and the physical are all one and the same. In order to understand how he hopes to pull off this, *prima facie*, nonsensical identification we must consider the passage in which he tells us that, "...cognitive closure with respect to P [the property that explains the nature of the psychophysical link] does not imply irrealism about P. That P is (as we might say) *noumenal* for M [our type of mind] does not show that P does not occur in some naturalistic scientific theory T..." (McGinn 1991: 4). Putting this together, we get the result that some physical theory does explain the nature of the psychophysical nexus but that this physical link theory is forever cognitively closed to us. This is why McGinn is a non-constructive naturalist who sees the mind-body relation as epistemically, but not metaphysically, problematic.

Flanagan reaches the same result, in a similar way. He too tells us, "The wise naturalist is not a reductionist" (Flanagan 1993: 92). But in order to avoid the obvious difficulties in this position he proposes a distinction between what he calls linguistic physicalism and metaphysical physicalism, and suggests that non-reductive naturalists ought only endorse the latter. He describes these two options in the following fashion:

> Metaphysical physicalism simply asserts that what there is, and all there is, is physical stuff and its relations. Linguistic physicalism is the thesis that everything physical can be expressed or captured in the languages of the basic sciences (Flanagan 1993: 98).

Despite other disagreements, both McGinn and Flanagan use the same tools in order to make sense of their brands of naturalism.[59] Thus McGinn distinguishes between effective and existential naturalism. Effective naturalism concerns our ability to construct naturalistic accounts of any phenomenon, while existential naturalism is just a metaphysical thesis that nothing that happens in nature is inherently anomalous (cf. McGinn 1991: 87). But both of these brands of non-reductive naturalism are quite bizarre because, in endorsing them, one literally does not know what it means to be a physicalist. The problem here is Searle's problem all over again. The physical is robbed of any possible meaning as there are no principled boundaries, such as those established by the reductionists, by which to decide which phenomena are genuinely physical.

The all too convenient distinction between the epistemic and the metaphysical makes metaphysical physicalism or existential naturalism unintelligible. Furthermore we might ask: What warrants McGinn's staunch faith in the truth of physicalism? What justifies the idea that there exists a physical theory, that is, in principle, beyond our grasp, which explains the facts of psychophysical connection?[60] The answer, which he gives himself, is that nothing justifies the view. Rather it must be accepted as an, "...article of metaphysical faith" (McGinn 1991: 87). On this point I am content to be a heretic.

4. Conclusion

I came close to endorsing a version of homuncular teleofunctionalism but I baulked at doing so for two main reasons. Firstly, I despair of equating experience even to the most sophisticated form of information-sensitivity, for reasons set out in chapter one. Secondly, because homuncular teleofunctionalism is a special case of the identity theory, it is not credible. This is because the reductive and eliminative forms of psychophysical identity theory provide no credible answer to the phenomenology problem and hence are unable to rationally cope with the metaphysical problem. Non-reductive physicalism, on the other hand, fails because, insofar as it will not compromise the reality or nature of the mental, it must bend the notion of the physical out of all recognition. In the light of this fact, no form of functionalism or explanatory physicalism, however well polished, is worth endorsing.

What is also clear from reviewing these cases is that the metaphysical problem only presents itself against certain background assumptions about what counts as 'the natural'. This notion rests on a certain entrenched view of metaphysics sponsored by the idea that the physical (in one form or another) describes the ultimately real. In the next chapter I offer a diagnosis of how this constrains our philosophical thinking and consider some alternatives to this approach to

metaphysics in chapter five. This is an important task because in shunning the functionalist and physicalist approaches, we ought not to abandon the claim that consciousness makes a difference. We can accept that experiences have causal aspects or roles as long as they are not defining ones. This autonomy is healthy. It is also consistent with accepting many of the insights, but not the metaphysics, of homuncular teleofunctionalism.

CHAPTER FOUR

Intelligibility and Conceptual Limits

"In philosophy one is in constant danger of producing a myth of symbolism, or a myth of mental processes. Instead of simply saying what anyone knows and must admit"

– Wittgenstein *Zettel:* §211.

1. Introduction

The main problem for physicalists, be they reductive or non-reductive, is that of making the relations between the non-physical and the physical intelligible, whether or not the relation in question is that of identity or some softer notion. The purpose of this chapter is to offer a diagnosis of why this problem is insurmountable for physicalists. My answer is that the tension arises because experience cannot be understood in terms of the object-based schema to which physicalism is implicitly committed. This is the real source of the intelligibility problem.

2. Problems in Defining the Physical

Physicalism is a hard doctrine to pin down. Even amongst the faithful, controversy rages over exactly how to define the scope of the central notion, the physical (cf. Tye 1996: 38–39).[61] In recent years Crane and Mellor have argued that the notion is so unstable that there is indeed no question of physicalism (Crane and Mellor 1990). Crane gives a neat summary of their conclusions. He writes:

> ...D. H. Mellor and I argued that physicalism faces a dilemma: 'physical' is either taken in [a] very restrictive sense, in which case physicalism is clearly false; or it is taken in a very broad sense, in which the doctrine is almost empty (Crane 1993: 224).

Physicalism is clearly false if one defends a version which looks to current physics in order to define its central notion. For given the historical ups and down of our past theoretical endeavours, inductive reasoning gives us reason to expect that current physics is, at best, no more than approximately true since we can expect many of its central concepts to undergo further change. And if something is only approximately true, it is not strictly true. Consequently, if we insist on a principle of bivalence, anyone defending this form of physicalism is defending a version that is, strictly speaking, false.[62]

In contrast we might regard the physical to be the end product of the developing science that is physics. In this way the central notion would be tied to a particular domain. Moreover this would leave room for acknowledging that, although there have been important shifts in the development of physics, these have been, "...neither chaotic or arbitrary" (cf. Ravenscroft 1997: 430). There is nothing inherently confused about adopting this second line of reply. Still we cannot simply leave matters as open as this since this offers no protection against the possibility that our latter-day physical ontology might come to include intuitively non-physical items (Melnyk 1997: 622, cf. Poland 1994: 118, Mills 1997: 177). Furthermore, if we are held hostage to such a wholly *a posteriori* constraint, then the doctrine says nothing substantive that we can currently assess. Nor can we repair this by stipulating a negative *a priori* constraint such that the physical is whatever is not mental. For, without an independent definition of the physical, we would lack a principled ground for making sense of the contrast (cf. Poland 1994: 113). In this form the doctrine is as good as empty.

2.1. A Reply to Crane and Mellor

There have been a number of attempts to meet this challenge. For example, Pettit has produced a definition of physicalism designed to be substantive enough to serve as a sound basis for metaphysics, while at the same time permitting unforeseen, future changes with respect to physical theory. On his formulation, physicalism is minimally committed to the two following claims:

(i) Everything that exists is, or is composed of, microphysical entities

(ii) Microphysical laws govern the behaviour of everything (cf. Pettit 1993: 213)

Thus armed, he maintains that the Crane-Mellor dilemma simply dissipates, as it is orthogonal to what really motivates physicalism. He writes:

> ...a physicalist doctrine ought to [claim]....that the empirical world contains just what a *true complete physics* would say it contains....For all we know the

> doctrine in question may possibly be true; it is non-committal enough about scientific detail to fit with our current knowledge (Pettit 1993: 222, emphasis mine).

Still it may be wondered: How can we currently assess the philosophical merits of physicalism, so defined? Without a true complete physics in hand, how can we determine whether physicalism is true? It is important to realise that such worries do not trouble Pettit given that his purpose is explicitly to define physicalism rather than to defend the truth of physicalism. His principle aim is to establish that it is not a vacuous doctrine (Pettit 1993: 216, 221). On this score there is merit in Pettit's formulation. Nevertheless it fails to meet the Crane-Mellor challenge adequately.

In order to make this case, it is sufficient to consider the implications of Pettit's first claim. For his definition is promising only to the extent that the notion of compositionality gives some sensible boundaries to physicalism which do not hang on possibly shifting scientific details. But just here we find another problem. For, in its usual sense, the very idea of compositionality presupposes an understanding of the physical which is bound up with the metaphor of building blocks and bricks. Without appeal to such a picture, how could we make sense of the notion of compositionality? We would need to specify which kinds of things can be composed of more basic things. Minimally this would require having an idea of what counts as instances of composition and an explanation of what this involves. Hence Pettit's physicalism cannot be completely noncommittal with respect to some further detail.

Yet the price of any tightening up of the compositionality claim is that physicalism must exclude any and all kinds which are not microphysical entities themselves, or composed of them. But this would exclude quite a lot of things, even some that are studied by some branches of physics. For it is questionable, even today, that we can sensibly employ the language of compositionality with respect to objects and events at the lowest rungs of ontology. We might ask: How ought we to understand the claim that atoms are composed of, say, quarks? At first blush such talk is common enough but it becomes obviously problematic, if we consider that atoms are locatable and quarks are, strictly speaking, not. Thus McMullin remarks that:

> ...problems do arise when we consider such mircoentities such as electrons. For one thing these are not particles strictly speaking though custom dies hard and the label 'elementary-particle physics' is still widely used....What is meant by 'particle' in this instance reduces to a force characteristic of a particular field, a far cry from the hard points of classical mechanics. And the situation is still more complicated if one turns to the quark hypothesis in

> quantum field theory. Though quarks are supposed to 'constitute' such entities as protons, they *cannot be regarded as 'constituents' in the ordinary physical sense*; that is they cannot be dissociated nor can they exist in the free state (McMullin 1984: 14, emphasis mine, cf. also Lockwood 1989: 35).

Things look different when we think of the paradigm cases of compositionality that encourage hope in physicalism and the unity of science. For example, there is no intellectual puzzle in understanding the relation between the entities described by physics and chemistry. It is possible to see, in a fully transparent fashion, how chemical molecules are composed of particular types of atoms with specific atomic weights. The connections between these can be described by certain valence rules (cf. P.S. Churchland 1986: 279, Kitcher 1993: 106–109). Thus at the atomic level, we can specify all the necessary conditions required in order to form particular chemical molecules. A chemical compound is nothing but certain kinds of atoms, in the right numbers, linked together in the right kind of way. It is an easy matter to make this kind of compositional claim intelligible because both chemistry and classical physics are part of a common conceptual framework, despite their divergent explanatory interests and methods. Hence, one thing that is clear from this case, as opposed to that of quarks, is that both classical physics and chemistry employ the object-based schema. Hookway's following remark provides the inspiration for this idea. He writes:

> ...a property is physical if it has a fundamental role in the explanatory practice which grows out of our initial concern to master the behaviour of spatio-temporal physical things. This leaves it open what the physical world is actually like, while keeping that world anchored through those *spatially extended objects* which were our first paradigms of the physical (Hookway 1988: 74, emphasis mine).[63]

Hookway's claim is very plausible when we remind ourselves that, in its humble beginnings, classical physics was essentially concerned with explaining the behaviour of familiar, macro-physical objects (cf. Poland 1994: 109–111). Consider the account of the development of physics from its early stages given by Einstein and Infeld in *The Evolution of Physics*. They begin by looking at the homely roots of physical theorising and note that our concepts of motion and force were originally bound up with very basic notions of pushing or pulling. Thus the application of force in precisely one or another of these forms provided the plausible first explanations of the motion of ordinary objects, such as carts. Indeed these were the first explanatory moves of early physicists. But physical science didn't really advance until it got behind such appearances, as suggested by ordinary cases, and constructed ideal scenarios. Thus in the case of explaining the motion of the cart, our understanding is dramatically re-configured once the effects

of friction are imaginatively removed. Mechanics took on new life once physicists began to employ ideal experiments and started to consider the behaviour of objects in the absence of all external forces (Einstein and Infeld 1961: 7, cf. also Lockwood 1989: 102). What emerged in the course of these developments was that only certain properties of an object became important to theorising. Physicists took a selective interest in theoretically construed aspects of objects, such as mass, position and velocity.

As a result, when they modelled objects, they did so in analogue form, by preserving crucial identities of relation, not relata (cf. Blachowicz 1997: 56–57). For example, an object's velocity – which consists of both its speed and direction of movement – can be pictorially represented by arrows, know as vectors. The arrow's point indicates the object's direction and its tail indicates its speed by varying the length in accord with some specified measure. Consider figure 10 in which vectors are used to abstractly represent the movement of three objects travelling in different directions and at different speeds (cf. Einstein and Infeld 1961: 11–31). Pictorial models such as these work by representing selected features of solid-state objects and this in turn enables physicists to chart, predict and explain their behaviour, at least in ideal conditions. Analogue representations of this kind can also be mathematical in form.

It is vital to note that, although selective and idealised, classical physical descriptions can always, in principle, be applied to the ordinary objects whose behaviour they purport to explain or predict. It is such objects that have mass, velocity, position and so on. Thus although the laws and concepts of classical physics developed by considering unmarked ideal cases, there is no intellectual barrier to bringing them home to roost. In theory, all that is required is that we fill in the surrounding conditions and the messy, physically accidental, details which were original abstracted away (cf. Hardcastle 1995: 24–26). This is what makes theoretical physics so powerful. Physics is regarded as successful precisely because its laws have an application in the real world; they apply in a wide range of heterogeneous cases involving object-like entities.

Yet the point I wish to stress is that paradigm physical theories – which employ the familiar notions of distance, time, mass, velocity – only apply to the entities of the object-based schema. What does this mean? Well, one way of explicating this claim is to focus on the paradigmatic features of objects which remain of interest to physicists even in their most rarefied theorising. For example, the fact that physics applies to objects and events in the spatio-temporal domain is a core feature which has survived and will likely survive any of its future alterations. For although physical science has undergone considerable theoretical transformations, it remains a vital hallmark of classical physics that its entities are in principle spatio-temporally locatable. Although I do not wish to say that this is the only criterion of the object-based schema, it is an important and seemingly necessary one which

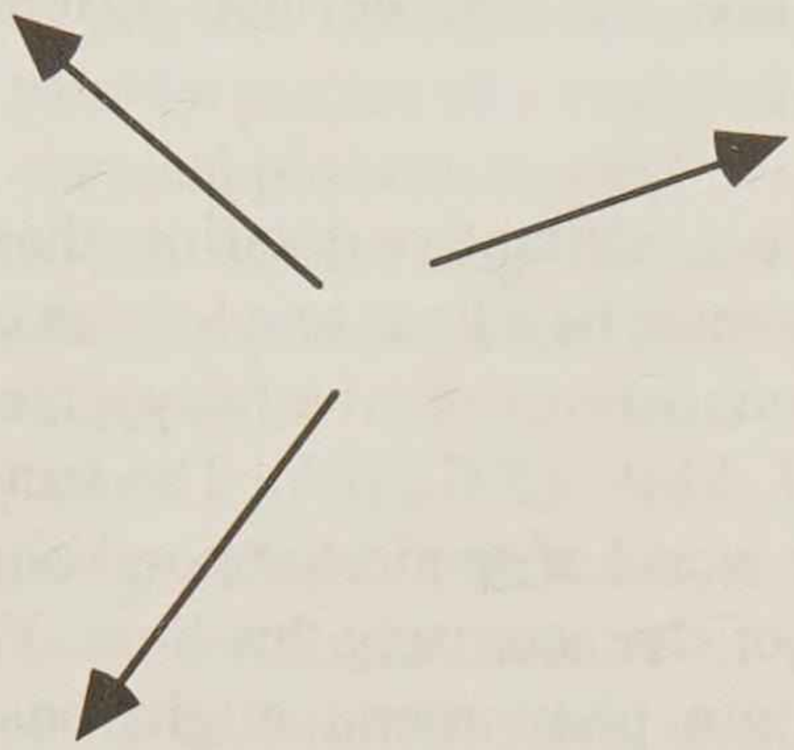


Figure 10. *A representation of moving objects by vectors*

is well recognised as such (cf. Hodgson 1991: 208–209, 259, cf. also Poland 1994: 124, 117). Consider Bob Hale's remark that:

> On any understanding of [the physical] that does not break faith with the broad, if somewhat vague, conception that informs and motivates it, physicalism is usually taken to be, at least in part, an ontological thesis: there are in reality no entities – objects, properties, relations, events or states of affairs – but physical ones. Just what being physical amounts to is again far from straightforward, but we can safely take, I think, that it requires at least locatability in space and time (Hale 1993: 39).

Moreover, in this light it is no surprise that the relation between chemistry and physics is a paradigm case for physicalists. For the objects of concern to these sciences have certain object-like features, such as locatability in space and time. This is important for, in line with my earlier observations about compositionality, if the atoms and molecules were not spatio-temporally located, we would be at a loss to make sense of the idea that the former were composed or constituted by the latter.

The point is that if we take physicalism to be committed to the object-based schema, which minimally requires a selective interest in the objects of space-time, we have the means for non-vacuously formulating it in a way that anchors its concern to a particular domain without foreclosing entirely on the possibility of development. For no matter how indifferent the mathematical formalisms of classical physics may appear to be with respect to certain qualities of objects, as opposed to their quantifiable features, its object-based schema derives from and remains distinctively applicable to objects in the spatio-temporal domain. Nothing I have said so far breaks faith with Einstein's and Infeld's observation that:

> ....science must create its own language, its own concepts, for its own use. Scientific concepts often begin with those used in ordinary language for the affairs of everyday life, but they develop differently (Einstein and Infeld 1961: 13).

If physicalism is to be a substantive doctrine, then, even allowing latitude for conceptual change, there must be a limit to what can constitute a physical concept. This is so even if the boundary cannot be fully stated in terms of necessary and sufficient conditions (cf. Mills 1997: 181). The fact that physics has developed from, and applies to, the world of spatio-temporal objects provides a tethered, but reasonably flexible way of characterising that limit. Yet it still provides ground for contrast such that certain phenomena might be regarded as non-physical. Specifically any phenomena that resist capture or incorporation into the object-based schema will be regarded thus. If we accept this, then physicalism can be formulated in a way that is not so freewheeling that it becomes meaningless, while at the same time allowing the notion to develop in theoretically projectible ways along a continuum. But, in line with the conclusions of the previous chapter, the price of physicalism's saying something non-trivial is that it becomes an open question whether or not it can incorporate every apparent natural phenomena. In the remains of this chapter I provide reasons for thinking that there are at least two kinds of natural phenomena, conscious experiences and the entities postulated by quantum physics, which resist capture, in different ways, within the object-based schema.

Yet before considering these cases, it is important to make an important caveat about my chosen terminology. Without refinements, talk of schemata has an obviously Kantian flavour (cf. Kitcher 1993: 84). One can hear echoes of Kant, for example, when Tye remarks, "Once the sensory input is brought under the appropriate schema, belief formation can take place" (Tye 1996: 66).[64] I am indifferent to this connotation. The reason I choose to talk of schemata rather than schemes is specifically to waylay confusion about the impossibility of there being radically different conceptual schemes. Since I deny that our experiential concepts can be incorporated into an object-based schema, it might be thought that I am advocating incommensurability in a way that ignores Davidson's important lesson about the impossibility of radically different conceptual schemes. But I am not. Davidson's point concerns the impossibility of maintaining that there is a meaningful pattern of which we can make no sense. In contrast, the cases I am interested in are those in which there are two or more different schemata, of which we can make sense independently, but of which we cannot make intelligible in terms of one another (cf. Hutto 1996: § iii).

2.2. *Interpretation and Quantum Physics*

It is well know that quantum physics throws up intellectual puzzles. This is because quantum mechanics paints a picture of a reality that is difficult to square with a realist treatment of the classical physical world.[65]

In the light of the discussion concerning the development of classical mechanics, it is important to note that puzzles about the interpretation of quantum physics are generated by developments in the practice of analogue modelling. Thus certain models have been extended in ways that, while perfectly mathematically respectable, took physics in a direction so far away from its roots that it was no longer possible to return to them. For, unlike the situation in classical physics, when it comes to quantum physics, we are not able to fill-in the details of the models such that they describe objects and properties which are anything like those found in the normal, macro-sized spatio-temporal world. Quantum physics is a case in which the development of physical concepts has gone beyond the limits of the object-based schema. Consider the notion of superposition which is the source of so much trouble. It emerged from the perfectly legitimate addition of vectors. As Lockwood explains:

> Take any arbitrary set of possible states of a physical system, represented by vectors in Hilbert space, multiply the vectors by any number you like, and add the corresponding vectors together. Then, provided the result is a vector with a finite length, it in turn will represent a physically possible state of the system. This is know as the superposition principle (Lockwood 1989: 182).

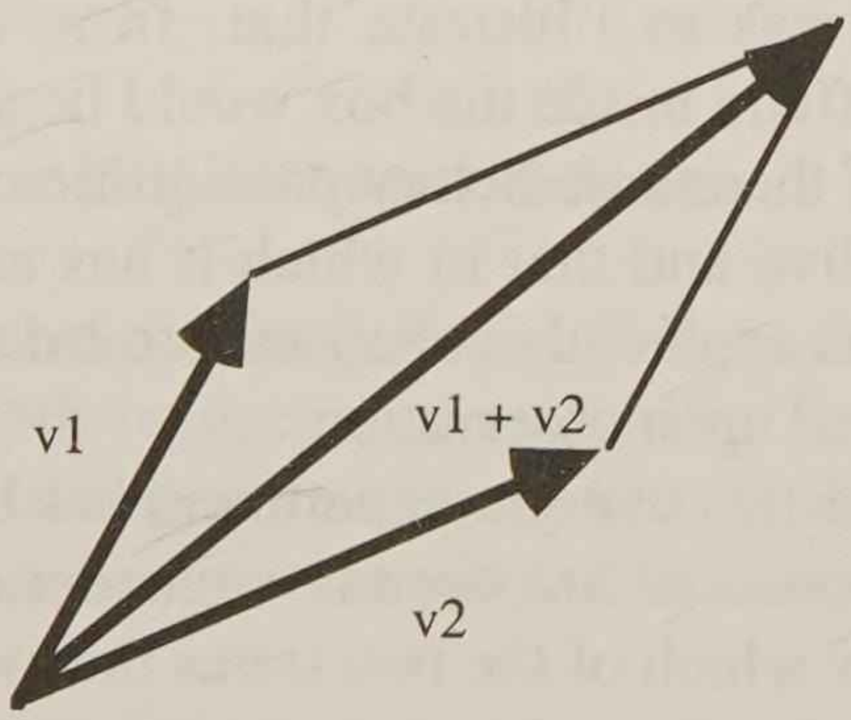


Figure 11. *Vector addition (adapted from Lockwood 1989: 181)*

The superposition principle lies at the very heart of the standard interpretation of quantum mechanics. It is meant to model, "...fully determinate states in which the energy of the system is represented by a vector which is a linear combination or superposition of the basis vectors corresponding to determinate energy states" (Lockwood 1989 182). It is simple enough to understand, mathematically speaking, and, as stated above, the idea may not seem very peculiar; but Lockwood immediately goes on to unveil the strange nature of such superposed states of affairs. He writes:

> We should pause to reflect just how extra-ordinary this is. My having my jacket on is a possible state. My having my jacket off is a possible state. According to the superposition principle, then, two-and-three quarters times jacket on plus six times jacket off is also a possible state (Lockwood 1989: 182).

This is a baffling metaphysical result. And it is with this in mind that the central equation of quantum mechanics, the Schrödinger equation, is said to throw up serious puzzles about how to understand the very nature of the domain. The problem is billed as one of interpretation.[66] Although frequently misconstrued as epistemological, it is essentially metaphysical in character. Consider Schrödinger's famous paradox in which we are asked to imagine a cat placed in a fiendish contraption containing decaying radioactive material and a Geiger counter which is connected to a hammer designed to smash a cyanide container if it is triggered. If we leave the cat in the box, without having any means of assessing the situation, we might imagine that at any given time the state of affairs inside the box would need to be such that either the cat was determinately alive or dead. But the point of the thought experiment was to illustrate that, from a quantum mechanical perspective, the state of affairs inside the box would be a complex indeterminate state; the superposition of the contradictory possibilities in which the trigger has not fired and the cat is alive and that in which it has and the cat is dead. This unspeakable state of affairs apparently collapses into a determinate state in which either the cat is alive or dead upon observation.

The general response to this thought experiment has been to generate worries about how the collapse occurs or has been to engender epistemological worries about how we could know which of the two states the system was really in prior to observation. However, Lockwood persuasively argues that Schrödinger was not primarily concerned with these issues. Rather his puzzle concerned the question of how to understand the nature of the indeterminate quantum state of affairs (cf. Lockwood 1989: 197–198). His was a metaphysical concern. Against this background we can see why the difficulty in formulating an adequate interpretation of quantum physics boils down to developing one that, "...can

plausibly be defended as realistic" (Cushing quoted in Folse 1996: 122).[67] Or as Maudlin says, "...what quantum mechanics has is not a measurement problem but a reality problem" (Maudlin, 1997: 21). But putting things in this way clearly smuggles in notions about what counts as metaphysical plausibility and presupposes that we have a satisfactory, or at least unproblematic, notion of the real. I submit that lurking in the background of this standard requirement is a commitment to the object-based schema.

These puzzles are even more alarming because, given quantum physics' remarkable successes in its current form, its quirky nature is unlikely to simply iron itself out. Although some live in perpetual hope that it will, there are several good reasons for thinking otherwise. Firstly, the strange entities it postulates are needed to fill certain gaps in classical physical explanations of the sub-atomic world. Secondly, its mathematical formalisms are all in order. Finally, its predictions have been vindicated time and again by experiment. Thus as Bohm noted:

> From the fact that quantum theory agrees with experiment in so wide a domain....it is evident that the....features of quantum mechanics are in some way a reflection of the real behaviour of matter in the atomic and nuclear domains, but here the question arises as to just how to interpret [those domains] (Bohm 1981: 67; cf. Chalmers 1996: 337).

Quantum physics is not alone in resisting incorporation into the object-based schema. A similar problem occurs, for different reasons, with respect to conscious experience. This brings us back to our main focus of concern. We must ask: Does experience also resist incorporation into the object-based schema? And if so, why?

3. Experience and the Object-based Schema

In his article "Why is Consciousness Puzzling?" Peter Bieri attempts to isolate the source of the trouble with respect to our inability to understand the place of experiences in the world-order. In the context of discussing an emergentist understanding of the relation of parts to wholes, he makes the following remark:

> ...whereas all other laws to which we get accustomed relate perfectly *objective* phenomena, we are here talking about the case where something *subjective* emerges from purely objective factors....there is an essential point we are not willing to give away: sensing or experiencing is something different and new relative to all other systematic properties (Bieri 1995: 52).

Behind Bieri's point is the idea that the real problem about consciousness is one of intelligibility. But intelligibility with respect to what? Consider the earlier discussion of section 2.1. I claimed that for there to be even a modest explanatory unity between any given special science and physics, we must expect them to share at least some degree of commonality in their conceptual schemas. If not, the logical possibility of explaining the interrelations between them would be precluded. Thus the paradigm of an intelligible inter-theoretic relation is that which holds between classical physics and chemistry. Here the situation is transparent precisely because both sciences subscribe to the object-based schema. Although there have been serious, general difficulties in the project of unifying the special sciences and in understanding how higher and lower order sciences inter-relate, it is important to note the ways in which experience is special. For if conscious experience cannot be understood under the auspices of the object-based schema, then to expect that psychophysical relations will be understood, after the fashion of physiochemical relations, is confused. If this were so, there would be no more hope of understanding consciousness by appeal to a physicalist metaphysics than there is of understanding quantum mechanics within such a framework. In order to doubt this, without abandoning the idea that physicalism is committed to an object-based schema, it would have to be claimed that conscious experiences could be rightly understood as being objects, processes or events of some kind. But here lie not only monsters but nonsense.

3.1. Stuff and Nonsense

When it comes to defending the reality of experience, many philosophers in today's post-Cartesian analytic tradition see themselves as faced with a choice; either to advocate some form of dualism or some form of materialism. The dualists tend to divide into two main camps, those who support substance dualism and those who support property dualism. Substance dualists take minds to be logically distinct entities which are strongly independent of bodies. Dualists of this stripe argue that minds must differ from physical substances because they stand beneath entirely different types of attributes or properties – i.e. mental attributes or properties. A standard characterisation of this picture regards it as modelling the mind on other bodily organs – the main difference being that ordinary bodily organs, such as hearts and livers, are spatially located in the world while minds are not (cf. Heil 1992: 20). Furthermore, if one thinks of the mind as some sort of non-physical entity or substance, then it is a natural next step to think of beliefs, feelings, moods and their kin as objects, processes or states that inhabit the mental domain. Still one could separate these ideas and allow that although there are non-reducible mental phenomena, things like minds, conceived as separate entities, do not exist. Those who take such a stand support a kind of property dualism. Such a

position is reasonably popular even today. Yet it encourages a familiar, uncritical view of mental states and properties which obscures the real issues.

The point of this abbreviated discussion is to stress that the quest to find a locus for mental episodes is not logically tied to dualism. As we saw in chapter two, the picture of the mind as a kind of non-bodily organ can get mixed up, in a most unhelpful way, with a crude materialism. This happens when one simply re-locates the mind in the brain and treats mental phenomena as identical to brain states or events. Such mind-brain events are thought to be located in a physical chain of causes. They are both the end results of incoming brain processes and the starting point for outgoing brain processes. Appropriately, given the foundations of the modern debate, such a view has been dubbed Cartesian materialism by Dennett (cf. Dennett 1991a: 106–107, 108, 1997 95–96).[68]

Asserting mental-physical identity is, of course, the natural response or reaction to dualism in its various forms – but it is little more than that. Moreover this simple re-fitting makes materialists prone to misrepresent the nature of psychological phenomena in a new and more insidious way. The mental objects, states, processes, events, and so on, which, in accord with dualism, would have previously inhabited the mind, now simply become allegedly unmysterious brain states, processes, features, activities, and events. Carruthers exemplifies this move when he tells us that a theory of consciousness is, "...a theory about the worldly *property* which mental states possess when they are conscious" (Carruthers 1996: 147). Once mental states are identified with brain states or events, the switch is complete and consciousness becomes a property of the brain or its states in just the way that colours are sometimes thought to be properties of objects. Somehow all the interesting mental properties are supposed to survive the re-housing. But it isn't innocent to model experience in this way. For the Fx model illegitimately reifies the phenomena in question.

It is interesting that neither dualism nor materialism, as sketched above, tell us anything of interest about the nature of mental phenomena. In fact the debate over their physicality, or lack thereof, obscures such important questions. The key problem in getting clear about the nature of experience is that we find it hard to free ourselves from object-based thinking. For what thwarts both the materialist and the dualist is that they, "...accept a certain vocabulary and with it a set of assumptions" (Searle 1992: 2).[69] The main assumption is that it is justified to debate the ontology of mental objects and processes without first determining their nature.[70] The approach of Mari Jibu and Kunio Yasue provides a clear example of this kind of procrastination. They write:

> What is consciousness? What is mind? Of course, we are not going to delve deeply into philosophical and epistemological considerations on consciousness. Rather we are going to reveal what kind of physical

> phenomena might be identified with the fundamental process of consciousness...(Jibu and Yasue 1995: 177).

I think this is methodologically unsound. I cannot see how any such identifications could be evaluated in the absence of at least working answers to the philosophical and epistemological issues. A consequence of ignoring these problems is that although most physicalists outwardly denounce the picture of inner, mental objects occupying the mind, they still are inclined to take seriously problems which do not make sense without presupposing the picture in some way. For example, some philosophers have been tempted to ask: Where is my experience of pain located? (cf. Hardcastle 1995). They take the sense of this question to be akin to the query; Where is my pen located? Trying to establish the location of experiences leads directly to the problem of phenomenal space, which is the problem of finding a place for the world of experience within the world of physical space (McGinn 1995: 149–153, Rundle 1997: 26–27, 40–41). Thus, if we decline to locate creature-relative objects of experience in the physical world, then we might be inclined to locate them in a world of secondary qualities – a world with spatial boundaries which are phenomenal as opposed to physical. But, Dennett is right to ask, "Now what is phenomenal space? Is it physical space inside the brain? Is it the on-stage space in the theater of consciousness located in the brain" (Dennett 1991a: 130)? In the very question, one can hear the echoes of the long-standing debate over the objects of perception which takes place between the representational sense-data theorists and their naive realists opponents.[71] In effect theirs is a battle concerning which side of the subject-object fence experiential modes of presentation should be located. Are the objects of perception, in virtue of which we see the world, in the mind or are they items in the world which we see directly? Neither answer is satisfactory, as we shall see, since the question is ill posed.

3.2. Two Rejections of the Reified Mind

The real question is: Is there an alternative to thinking of experiences as kinds of objects? It is instructive to contrast the positions of Wittgenstein and Dennett on this issue. Both philosophers are united in their rejection of inner objects.

Dennett believes that most philosophers, and those lay folk influenced by them, conjure up images of the mind as an inner (mental) theatre complete with a self who examines various objects of consciousness (pains, colours, figments of the imagination, etc.). Those under the sway of this picture think of our verbal reports concerning consciousness as based upon what the self sees on its private, inner screen. Apparently it introspects mental items in a way similar to that in which we ordinarily inspect everyday things such as watches or pieces of china. It is one of

the primary stated aims of *Consciousness Explained* to undermine this Cartesian legacy in the philosophy of mind. To this end Dennett catalogues the traditional problems that the view engenders, such as: the problem of interaction, the problem of inverted spectra, and the problem of epiphenomenal qualia (Dennett 1991a: 33–35, ch. 12 §4–5). However, he also gives us an insight into his overarching reason for rejecting it when he tells us that the, "...fundamentally anti-scientific stance of dualism is, to my mind, its most disqualifying feature" (Dennett 1991a: 37).

Wittgenstein too is particularly interested in the idea of the inner (and 'states of consciousness', as he writes in the preface of the *Investigations*).[72] Nevertheless, for him, the source of our misunderstanding about the nature of the inner is not traced back to Descartes' doorstep – rather it is generated by a primitive view of the operation of psychological language. For him the desire to reify the psychological is bound up with the view that all language is essentially referential in nature. It is linked with the idea that the primary function of words is to provide names for objects. Furthermore, it is connected with the notion that the essential aim of language is to effect a simple form of communication. The idea is that when I tell you what is going on inside me, I use a descriptor, like 'sharp pain', to pass on information to you. If you are acquainted with sharp pains yourself, if you know what kind of thing my word designates, then by analogy you gain an insight into my situation.

For Wittgenstein, this picture, of how language operates, generates and supports the idea of an inner realm of mental events which looks non-trivially like the mental realm conjured up by Descartes' philosophy of mind. It is this name-object view of language and its attendant metaphysics that he challenges with his celebrated private language argument. That so-called argument is meant to show that the meaning of our sensation terms cannot be based on any appeal to inner entities. Although it is much debated how to correctly interpret the passages from §243 to §275 in the *Investigations* which constitute the relevant sections, I side with those who take him to be attacking the idea of the name-private object view of psychological language on the basis of a general critique of the name-object picture itself. His essential criticism is that an individual trying to employ such a language must presuppose that the 'signs' they are using are meaningful before they engage in the naming ceremony of private ostension which is supposed to give them their meanings. The primary problem is that, in order to group sensations under a type, one must already have in hand some independent standard with which to identify and classify them. Thus it isn't possible to use the object itself to provide such a standard. And in the absence of such a standard there can be no talk of being mistaken about whether or not a sign hits its target. This is what robs the putative sensation label of any possible meaning. The very idea of a private language is both superfluous and incoherent.

What is important, for the terms of our discussion, is that his attack on the name-object view of language is also an attack on the picture of inner mental processes. Moreover, not only does he claim that the name-object view of psychological language is ill-founded, it prevents us from seeing our psychological situation aright. Thus he writes:

> The main difficulty arises from our imagining the experience (pain for instance) as a *thing* for which of course we have a name and whose concept is therefore quite easy to grasp (Wittgenstein 1992: 43e).

> The 'inner' is a delusion. That is: the whole complex of ideas alluded to by this word is like a painted curtain drawn in front of the scene of the actual word use (Wittgenstein 1992: 84e).

Wittgenstein wants us to get past this picture and to attend to our actual use of psychological concepts.[73] That is to say, he want us to notice what goes on when we actually make psychological ascriptions to others or give expression to our own psychological situation. It is precisely this attitude which underwrites the following series of remarks which are typical of the later writings:

> The expression "Who knows what is going on inside him!" The interpretation of outer events as the consequences of unknown ones, of merely surmised, inner ones. The interest that is focused on the inner, as if on the chemical structure, from which behaviour arises.
> For one needs only to ask, "What do I care about inner events, whatever they are?!", to see that a different attitude is conceivable. –"But surely everyone will always be interested in his inner life!" Nonsense. Would I know that pain, etc., etc. was something inner if I weren't told so? (Wittgenstein 1980b: §643).

In the remark which follows shortly after those above, we can see the beginnings of his positive account about how we do, in fact, actually speak about the inner lives of others:

> If we're asked "What's going on inside him?" we say "Surely very little goes on inside him." But what do we know about it?! We construct a picture of it [the inner] according to his behaviour, his utterances, his ability to think. (Wittgenstein 1980b: §650).

We can see from this that Dennett and Wittgenstein are allied in their attack on the tendency to reify conscious states (where this label acts as an umbrella term for

any number of mental phenomena such as feeling pain, seeing colours, experiencing dizziness, etc.). Thus even though their attacks come from different directions and they advance them with different agendas, they both object to the tendency to objectivify experiences. As they see it, if we wish to avoid becoming bogged down in the kind of interminable metaphysical squabbles that sponsor the traditional debate between dualism and materialism, we must recognise that the term mind does not refer to any kind of entity and realise that experiences are not special kinds of object – not even strange sorts whose *esse* really is *percepi*.

It may also appear, at first glance, that despite the difference in the origins of their worries concerning reified mental phenomena, Dennett and Wittgenstein advance somewhat similar positive accounts. For example, with respect to consciousness, Dennett intends to initiate a, "...demystifying philosophical investigation" (Dennett 1991a: 22). Moreover in challenging our everyday intuitions about consciousness, he regards himself as essentially working within a Wittgensteinian framework. For example, he tells us that, "My debt to Wittgenstein is large and long-standing" (Dennett 1991a: 462).[74] And he openly confesses that, "...what I am doing [is] a kind of redoing of Wittgenstein's attack on the 'objects' of conscious experience" (Dennett 1991a: 462). In essence, his strategy has been one of getting us to trade in our ordinary intuitions so as to soften us up for the first phases of a full-fledged scientific explanation of consciousness in terms of sub-personal systems and their ontogenetic origins.[75] His hope is that, once we are freed from certain misleading metaphors about the mind we will be receptive to such an explanation. Thus we might also think that the behaviourist aspect of Dennett's personal level understanding of consciousness has Wittgensteinian roots. For example, in one way or another, they both agree that concentration on outward behaviour and linguistic expressions provides a better way to understand the nature of consciousness. But this apparent similarity is, in fact, an illusion.

In the next section I offer a critique of the first stage of Dennett's project from a Wittgensteinian perspective. For although Wittgenstein was also concerned to demystify consciousness, his approach and Dennett's differ remarkably. Specifically, it is against the spirit of the former's approach to attempt to reduce psychological talk to anything else. On this crucial point they diverge significantly. Thus, although in one sense they are good travelling companions along a certain stretch, at an important cross-roads their incompatible concerns, generated by their different starting points and end goals, take them in different directions. Furthermore, once the tragic flaw of Dennett's project of explaining consciousness is revealed, we can see good reasons for preferring Wittgenstein's road less travelled. For he alone gets to the heart of the matter, when it comes to the issue of reification.

3.2.1. *Heterophenomenology and the Lack of Interpretation*

As was discussed in the preceding chapter, Dennett hopes to replace the Cartesian theatre metaphor with his revisionist multiple drafts proposal. One might expect that, in doing away with the very idea of objects of consciousness, Wittgenstein must be advancing a revisionist line as well. But, importantly, he is not. On the contrary he is concerned to 'leave everything as it is'. He offers an understanding of consciousness that differs significantly from that of his self-styled follower, Dennett. The key contrast revolves around their differing attitudes to the speech acts which are regarded as expressions of consciousness. Wittgenstein is concerned to understand those deliverances as expressive in character while Dennett, on the other hand, treats them as constitutive. Yet there is a naiveté inherent in the latter's attitude toward the nature of psychological language. For example, he gives no attention to the question of how we are to interpret such speech acts, making his treatment of them thoroughly inadequate. As he has no positive account of how such language operates, he has trouble making any room for the inner after having evacuated the Cartesian theatre. Let me make my complaint more specific.

Despite having partially seen that it is a serviceable objection to Cartesianism to show that there are no mental items which are designated by our talk of experience, Dennett's heterophenomenological method nevertheless encourages the view that language, when it is performing its true office, is essentially referential in character. That is to say he feels no discomfort in treating the deliverances concerning experience as referring to objects in the subject's notional world. The idea looks something like this; we can make space for conscious entities, as long as we do not take them too seriously at the ontological level. In this respect his account is truly deflationary. Yet his irrealism is non-accidentally linked to the fact that he still treats talk of experiences as a species of report, for one only feels the pressure to treat such deliverances less than seriously if one continues to think that the purpose of all language is simply to name. Hence having failed to name real things, we are bidden to think of talk of experiences as naming notional ones. But to put the objection succinctly, the private language argument works just as effectively against objects in a notional world as it does against those in a private, inner world. Beetles in boxes are beetles in boxes, whether they are real or notional.

Even more damning, having seen the folly of thinking that we are referring to private objects of experience when making utterances about our states of mind, Dennett nevertheless fails to provide any plausible positive account as to how we might make sense of such utterances. In line with his conceptualist approach, as Bricke notes, "...typically, he has subjects being conscious only of the content of their mental states" (Bricke 1985: 253). But if this account is to be remotely

credible, we are owed an account of the content of the seeming reports about conscious seemings. This is especially so since Dennett claims that the speech acts concerning consciousness are not just so much noise; they must be interpreted. He freely admits that the heterophenomenological, "...process depends on assumptions about which language is being spoken, and some of the speaker's intentions" (Dennett 1991a: 75). Yet he offers no serious explanation of what grounds such interpretation. What is the basis for understanding the quasi-reports of others? For example, in collaborating to create a heterophenomenological world, X hears Y say, "I see a purple cow". But what is it that X takes Y to be saying? How is X to understand the meaning of Y's report if it refers to some item in Y's notional world? Dennett's answer is that it is, "...because they know English, and this is what makes sense, obviously, in this context" (Dennett 1991a: 75).

This move might work for someone like Davidson who has an account of how interpretation might proceed if our basic assumptions about the home case fails, but it is woefully inadequate, given Dennett's view of content. For, we might ask: What is it about X's knowledge of English that enables him to know to which item Y is referring? How can it be that such knowledge gives X access to the kind of notional objects Y's words designate? To answer these questions requires a plausible theory of interpretation, not simply an appeal to the assumption that for those who speak the same language it is relatively unproblematic for them to understand such statements. This may be so, but what underwrites this fact? The problem is that, unlike Davidson, Dennett is deeply suspicious of the objectivity of meaning and follows a Quinean eliminativist line concerning it. But if this is the right attitude to adopt, how is it possible to make sense of the heterophenomenological method? If the content of our seeming reports about our experiences is non-objective and there are no facts, obvious or otherwise, about what speakers mean, then how can X interpret Y at all?

This is the real weakness in Dennett's approach. For even if we were to accept his reduction of consciousness to the intentional, he provides no solid understanding of intentional content. This, connected with his complete lack of concern for the workings of psychological language, crucially divorces his project from its putative Wittgensteinian origins. The point is that, because his agenda for rejecting the picture of the reified mind is different than that of Wittgenstein's, he feels no need to address these sorts of issues. Ironically, it is because Dennett does not fully appreciate Wittgenstein's purposes, that he accuses him of lacking the courage of his convictions in the very matter of the ontology of the mental. For instance, he approves of the famous remark, "The thing in the box has no place in the language-game at all; not even as a *something;* for the box might even be empty" (Wittgenstein 1953: §293). Yet he accuses Wittgenstein of hedging his bets when he adds shortly afterward, "Its not a *something*, but not a *nothing* either" (Wittgenstein 1953: §304, Dennett 1990: 524, cf. also Rorty 1998a: 124).

On the other hand, he tells us that he is willing to grab the bull by the horns and, take a stand even more radical than that of Wittgenstein's.[76] But this sort of talk only reveals how little he really understood the latter's positive views. It is true that many have found the 'not a something but not a nothing' remark to be deliberately and unnecessarily cryptic. Yet I think Wittgenstein is simply being careful. He is partly restating his dismissal of the reified mind – i.e. repeating that he is not prepared to treat experiences as thing-like – while at the same time making it clear that he is not prepared to deny their existence. Behind it all he is trying to get us to see that, in talking about experiences and sensations, we are neither giving reports about objects in a real inner world nor non-objects in some notional world. In speaking of sensations, we are giving expression to our psychological situation. Unlike Dennett, he does not presuppose that language performs a uniform function. Consequently, he bids us to pay greater attention to the way in which psychological language actually operates.

3.2.2. Wittgenstein's Expressivist Account

Once we seriously abandon the myth of the reified mind, we cannot construe judgements about our psychological situation as kinds of report of any kind at all. We cannot treat them as being based on some kind of inner evidence because the very idea of inner evidence is an oxymoron. Thus we are not making judgements about inner objects when we give expression to our inner situation. This also means we have no evidence to back up statements about our inner life. And, just as the idea of inner evidence is nonsensical, it would be equally wrong to think that we rely on outer evidence in order to decide how we feel. I do not decide that I am in pain by first noticing a cut on my leg, nor do I decide this by some process of introspection. I simply feel pain or notice that I am in pain and say so. My linguistic utterances of pain are natural extensions of, or replacements for, my earlier ways of expressing pain – i.e. shouting, bawling, and the like. A development of more primitive, nonconceptual forms of response that we share with animals.

Psychological language is expressive, not referential. This is why, "...a lie about inner processes is of a different category from one about outer processes" (Wittgenstein 1992: 33e). It is because psychological language is expressive that Johnston tells us that the basis of our sophisticated kind of language game is more to do with sincerity than accuracy (Johnston 1993: 13). Accuracy presupposes some independent means of verification and that is precisely what we lack in this case. This is why Wittgenstein encourages us to treat the speech acts concerning our inner life as confessional in nature. He writes, "What is the importance of someone making this or that confession? Does he have to be able to judge his condition correctly? – What matters here is not an inner condition he judges, but

just his confession" (Wittgenstein 1980b: §562). And, "...confession is of course something exterior" (Wittgenstein 1980b: §703, 1967: §558).

Nevertheless we may wonder how are we to understand pretence on a view that insists that nothing is hidden and that psychological language is essentially expressive. Of course, it is still possible that a person could be lying and giving false confession. But what are they lying about? Here Wittgenstein reminds us that, "Above all pretence has its own outward signs. How could we otherwise talk about pretence at all?" (Wittgenstein 1992: 42e). Moreover he makes it perfectly clear how we are to treat such cases when he talks about the role trust plays in dealing with another's psychology which fits with the observations about simulation made in chapter one, section 3.2.[77] He writes, "Do I pay any mind to his inner processes if I *trust* him? If I don't trust him I say, "I don't know what's going on inside him". But if I trust him, I don't say I know what's going on inside him" (Wittgenstein 1980b: §602 cf. also §604). That is to say, if I do trust him I treat his utterances as being genuinely expressive – just as in a more primitive setting I respond directly to the facial or bodily expressions of the other. Yet the asymmetry between these cases is just the opposite of what one would expect if there were objects of consciousness. In the case where there is genuine pain, we can get by with just the other's expression. In the case of pretence, where there is no pain, we must treat the utterance as serving a different and potentially deceptive function. Here the expression is deliberately mocking. The point is that we need not return to the idea of a reified mind in order to make logical space for the possibility of pretence.

Is this, in effect, a reduction of the inner to outer behaviour? Wittgenstein constantly rejects this interpretation of his position. His remarks on this issue occur in many places in the later writings. I have collected just a few to support my claim that it is wrong to read him as sponsoring behaviourism in any form. For example, he writes:

> ...the impression that we wanted to deny something arises from our setting our faces against the picture of the 'inner process'. What we deny is that the picture of the inner process gives us the correct idea of the use of the [psychological] word[s]...(Wittgenstein 1953: §105).

> Are you not really a behaviourist in disguise? Aren't you at bottom really saying that everything except human behaviour is a fiction?" – If I do speak of a fiction, then it is of a *grammatical* fiction (Wittgenstein 1953: §307).

> ...we have to deny the yet uncomprehended process in the yet uncomprehended medium. And now it looks as if we had denied mental processes. And naturally we don't want to deny them (Wittgenstein 1953: §308).

> But am I not really speaking only of the outer?....it is as if I wanted to explain (quasi-define) the inner through the outer. And yet it isn't so (Wittgenstein 1992: 63e).

I believe it helps to see how unbehaviourist he really was when we contrast his position to that of Dennett's. For in concentrating solely on the grammar of our mental discourse and by rejecting the name-object picture of language as altogether inappropriate in this domain, Wittgenstein provides a more satisfactory view of the nature and importance of experiences.[78] He does not try to equate talk of consciousness to talk of the outer behaviour of bodies; rather he has reminded us that in treating others as conscious beings, we are always engaged in an interpretative project, broadly conceived – one which is informed by our form of life. It is a strength of his approach that when he rejects the idea that reified conscious states have reality rights, he simultaneously attacks the name-object picture of language. Yet, as he has a different, more sophisticated conception of how language operates, he is not even tempted to be irrealist about consciousness. He writes, "The connection of inner and outer is part of these concepts. We don't draw this connection in order to magically remove the inner. There are inner *concepts* and outer *concepts*." (Wittgenstein 1992: 62e). In this way, talk about experiences is not analogous to talk about physical objects. Psychological talk has its own unique grammar. Thus, although Wittgenstein is sometimes regarded as the grand guru of logical behaviourism, it is in fact more appropriate that Dennett should wear this title. For Wittgenstein, the inner is not demystified through ontological elimination; it is demystified by attending to the nature of psychological language. Our understanding of consciousness is, to use Mulhall's words, de-mythologized.

What then would Wittgenstein make of Dennett's project? I think he would regard the latter's counter-intuitive theory as a bad response to a series of problems which rest on a house of cards. In advocating such a theory, Dennett falls into the trap of trying to use new information or a new discovery to solve a philosophical problem when instead what is needed is an investigation into the way psychological language operates (cf. Wittgenstein, 1953: §109, §90–92). Ironically, by appeal to notional worlds Dennett has simply generated his own, new-order mythology. Rather than settling the issue, his new set of metaphors simply creates different puzzles to confuse the metaphysician. Wittgenstein's attitude, on the other hand, is that philosophy finds peace when it understands the nature of the problems that concern it and bedevil it. Thus in the end we must regard Dennett as being mistaken in believing that he is, in fact, "...more Wittgensteinian than St. Ludwig himself" (Dennett 1993: 143). It is not that Dennett has been more thorough in his application of Wittgenstein's method; rather it is that he has thoroughly misunderstood that method. We can only

understand the nature of consciousness by attending to our ordinary psychological talk. We will not escape our philosophical problems by advancing a superior theory and thus supplanting or surpassing such talk. This reveals the crucial difference in the character of their demystifying investigations. To successfully demystify consciousness Dennett thinks we need to develop a principled and revisionist theory of consciousness. But, if Wittgenstein is right, what we require is a rearrangement of facts that we have already always known. We need to get a clear view of the nature of our psychological language. Thus he famously tells us that, "Philosophy simply puts everything before us, and neither explains nor deduces anything. – Since everything lies open to view there is nothing to explain. For what is hidden, for example, is of *no interest to us*" (Wittgenstein 1953: §126, cf. 1982: §974).

4. Referring to Modes of Presentation

As I argued in the previous chapter, despite being nonconceptual, experiences are best modelled as kinds of sense. They should be regarded as special kinds of modes of presentation, rather than as referents. Appearances don't appear; things appear. For this reason, the sense-referent divide that underpins the explanatory-ontological divide, appealed to by both reductive and non-reductive physicalists, cannot apply in this domain. Standardly, the thought is that the higher-level theory quantifies over entities which can be eliminated in favour of simpler entities, as described by the lower-level theory. The higher level theories are pitched at the level of sense, and retained for explanatory purposes, whereas the lowest level is alone concerned with reference and ontology. But if we think of experiences as nonconceptual forms of sense, this move is blocked.

Nevertheless it may be claimed that even if experiences belong to the category, 'mode of presentation', it is still possible to make reference to them. If this is so, then they could be referents as well. This thought both rests upon and fosters certain deeply entrenched philosophical confusions. It has a long history and, at first blush, seems hard to deny. How, if at all, can we understand our seeming ability to refer to experiences, without making the mistake of reifying such modes of presentation? To answer this, it will be useful to consider how what I have said so far fits with the views outlined in chapter one and my earlier observations about the problems of incorporating consciousness into the object-based schema. If we take seriously the idea that there is a world-directed aspect to most experience, it is possible to throw some light on the reasons why descriptions of how things seem to us should not be construed as reports about inner events. The thought is that our most basic experiences typically produce responses that are supposed to be directed at certain aspects of an environment – be that environment internal, like a damaged lining in the stomach or external, like a thrown object. To this extent I

wholeheartedly agree with Tye's reasons for thinking that the objects of experience are not located in the mind or head (Tye 1996: 135–136). He reminds us that:

> When you turn your gaze inward and try to focus your attention on intrinsic features of these experiences, why do you always seem to end up attending to what the experiences are *of*? Suppose you have a visual experience of a shiny, blood-soaked dagger. Whether, like Macbeth, you are hallucinating or whether you are seeing a real dagger you experience redness and shininess as outside you, as covering the surface of the dagger....In turning one's mind inward to attend to the experience, one seems to end up scrutinising external features or properties (Tye 1996: 135–136).[79]

But if this is right, to what are we referring when we refer to our experiences? Surely not simply features of the world? It may help to understand this if we consider Chalmers' distinction between first and second order remarks about experience. A first-order remark about experience would be one, "...concerning not the experience itself but the object of experience" (cf. Chalmers 1996: 175). Such first-order statements with respect to the world around us and others' responses to it, are the ground upon which we develop and learn our psychological concepts. This accounts both for the fact that psychological terms can be implicitly functionally defined, in the first instance – as Lewis proposed – and also why the confused name-object view has such a grip on us. However, second-order judgements focus directly on experiences themselves. Hence, as Chalmers notes, "When I have a red sensation, I sometimes notice that I am having a red sensation" (Chalmers 1996: 176). It is by this means that we come to talk of the purely qualitative or sensational properties of experiences. In this way we classify them according to how they feel. Like Johnston, I claim that such second-order talk is a derivative, late development and is based on our first learning to speak about things around us in a public language (cf. Johnston 1993: 55–57, Hill 1991: 14–15, M. Williams 1998: 28). Thus we can only make a remark about how things appear to us once we are in a position to conceptually distinguish what is 'out there' from what is 'in here'. Nevertheless the mere capacity for experience predates the capacity to make both these kinds of remark.

The position is that experiences, regarded as modes of presentation, are not something over which we quantify in the way in which we quantify over ordinary objects. But, in saying this, it is not necessary to deploy the standard analytical philosopher's deflationary parlour trick of adbverbialising experiences (cf. Lycan 1998: 83–88). Indeed, as Lycan suggests, even the most plausible versions of the adverbial theory still require mention of what he calls 'phenomenal individuals'. To illustrate this he describes the failings of various attempts to adverbialise the greenness of the patch, which is apparently referred to in the following remark:

(1) Leopold is having a bright, intense, vivid, homogeneously green after-image.

A straightforward logical analysis of statement (1) requires us to quantify over an entity – an after-image – which has the several listed properties. However Lycan's desire is to eliminate such monadic entities, in order to advance a purely relational account of qualia consistent with his own brand of functionalism. But he takes a different tack to the abverbialist on the nature of the individuals so mentioned. He writes:

> ...it is open to us to disagree with [the] assumption that the individuals thus colored must be actual entities. On the account I have sketched, Leopold's green patch is not here in the room with Leopold, because it is not in our world, the actual world at all (Lycan 1988: 88).

I agree with this much of Lycan's analysis, but let me be clear about exactly where we disagree. I think he is right to think that, "...neither inside or outside Leopold's head is there any physical thing in the room that is green..." (Lycan 1998: 85). Let's consider these two options in turn.

Firstly, it is not in his head even though, as McGinn rightly notes, when confronted with the problem of finding a home for experiences in the world, there is a pervasive tendency, amongst philosophers, to try to locate the experiences in the brain of the subject on the basis of causal considerations (McGinn 1995: 151). For example, even Tye points to a cerebral location for experiences, despite adopting the strong representationalist line. He writes, "...if I have a pain in my leg, intuitively, I am aware of something in my leg (and not in my head, which *is where the experience itself is*) as painful" (Tye 1996: 116, emphasis mine, cf. also Tye 1996: 91, Lockwood 1989: 72). Presumably, as with Dretske's account, the idea is that the brain state, which is identified with the experience, is simply a vehicle of content, a purely functional mode of presentation, and hence can be located in the brain.[80] The idea here is that, "To 'know what it is like' to have such-and-such a sensation is a functional rather than a referential matter..." (Lycan 1988: 80). But it is not plausible to simply regard experiences as mere neural vehicles of representational content. We cannot identify them with brain states in this casual manner. For unless the intelligibility of some form of identity theory is wrongly presupposed, we come face to face with the full complement of unanswered questions all over again.

But neither is Leopold's experience in the world beyond. It is true that when we are not regarding the world through the eyes of physicists, it makes perfect sense to say that colours are out there. This is built into our first-order statements. Nevertheless, while we can make sense of the idea that the objects of consciousness are features of the world, experiences *per se* cannot be identified

with things or properties of things (cf. Dretske 1995: 36). Although this would solve the location problem by squarely placing the contents of consciousness in the world, it wrongly conflates the object or focus of consciousness with its experiential content. And such a view cannot be squared with the idea that experiences are modes of presentation. Indeed this is why it is always possible to distinguish the properties of the object itself from the way they appear to certain kinds of creature, or to a particular creature of a certain kind, or to a particular creature of a certain kind in conditions x and y, and so on. If we wish to talk of experiences as modes of presentation, we must distinguish: the object itself and its properties, the intentionality that directs us at *this* rather than *that* object, and the way in which the object is presented to a subject. Conflating any of these leads to confusion. But, like many others, Lycan is prone to conflate. Thus, in adopting the idea that a colour is the intentional object of consciousness, he unhappily concludes that, "It is afterall no surprise to be told that mental states have intentional objects that may not exist" (Lycan 1988: 88). He then compounds his error by endorsing a kind of Dennettian irrealism about experiences. He writes:

> If they do not exist, then – *voila*! – they do not exist; there are in reality no such things. And that is why we can consistently admit that phenomenal-color properties qualify as individuals without granting that there exist individuals that are the bearers of phenomenal color-properties (Lycan 1988: 88).

The problems Dennett encounters should be enough to discourage adoption of this view. My alternative suggestion is that, despite the fact that we can indirectly refer to experiences, we ought not treat them as kinds of object, or features or properties thereof, at all. I am prepared to recognise that there are more phenomena than those over which we can existentially quantify, at least insofar as being the object of such quantification presupposes that the entities in question must be modelled as some kind of object which has specific properties. For Dennett is still right in thinking that we must altogether rid ourselves of the misleading picture of experiences as stars in the cinema show of the senses as watched by an internal viewer. This compares well with Wittgenstein's remark that:

> What actually is the 'world' of consciousness? There I'd like to say: 'What goes on in my mind, what's going on in it now, what I see, hear....Couldn't we simplify that and say 'What I am now seeing'? (Wittgenstein, 1992: 74e).

As Aristotle intimated, a good reason to adopt this line is that when we see something we do not see our seeing of it (cf. also Evans 1982: 230, Lockwood 1989: 140). Thus long before the later-day empiricists gave expression to the problem of the infinite regress of internal viewers, he had written, "...if the sense

concerned with sight is indeed different from sight, either there will be an infinite regress or there will be some sense which is concerned with itself; so that we had best admit this of the first in the series" (Aristotle *De Anima* 425^{b} 15–18). To say this is to say there is no sensory means of detecting experiences. There is only an elliptical conceptual means of indexing them, as revealed by our capacity to make second-order statements about them. Experiences are not seen; they are the media through which we see. In taking this line, we can see why the representationalists get the story generally right about the distal objects – internal or external – at which we are directed. But, as was argued in previous chapters, even if we recognise this, it is still a mistake to confuse experience with either intentional directedness, intentional objects or bodily or neural mechanisms. If we wish to avoid a host of intractable difficulties, it is better to regard consciousness, not as what is experienced, but as how things are experienced.

To return to an earlier concern, a consequence of this view is that it is not possible to give something like our experience of the colour red a location in the way we can locate our car keys or a pencil on our desks (cf. McGinn 1995: 150). To borrow McGinn's summary, "In advance of theoretical reconstruction consciousness is not spatially well-behaved" (McGinn 1995: 153). It makes no more sense to ask about the location of experiences than it does to ask, "What time is it on the sun?" – although the nonsensicality of the questions may not be immediately obvious. Given this we must abandon the attempt to locate them as deeply wrongheaded. This applies just as much to the issue of the location of conscious experiences as to the question of the location of the inner subject of consciousness.[81] To be worried about such questions reveals a misunderstanding of the nature of consciousness. Saying this is not an attempt to bury or avoid the problems associated with our attempts to understand experience. It is simply to reiterate that things in the ordinary spatio-temporal world are the targets of perception and that, as such, that world is not co-extensive with the world of consciousness itself. Nor should the latter be modelled on the former.

4.1. Questioning the Standard

To conclude, in making the comparison between consciousness and quantum physics, it is important to be clear about what I am not suggesting. Others have, in one way or another, recognised the difficulty of finding a home for both quantum physics and consciousness within the familiar, object-based schema. On this basis, and also because there are other *prima facie* similarities between the two domains, a plethora of theories have been advanced which have tried to establish that there is an interesting metaphysical link between these two strange types of phenomena (cf. Penrose 1989, 1994a, Hodgson 1991, Stapp 1993, Hameroff 1994, Scott 1996). Chalmers gives a sound explanation of the popularity of this manoeuvre. He writes:

> The attractiveness of quantum theories of consciousness may stem from a Law of Mimimization of Mystery: consciousness is mysterious and quantum mechanics is mysterious, so maybe the two mysteries have a common source (Chalmers 1995: 207).

But, in contrast to these other views, I am not advocating a quantum theory of consciousness. Nor do I think such theories are plausible, for in their own way they fail to provide suitable answers to the phenomenology problem. Although I will not pursue the issue here, my position is rather like that advanced by Grush and Churchland. For example, in the conclusion of their article on Penrose's version of the quantum theory of consciousness, they write:

> Nothing we have said in this paper demonstrates the falsity of the quantum-consciousness connection. Our view is just that it is no better supported than any one of a gazillion caterpillar-with-hookah hypotheses (Grush and Churchland 1995: 28, cf. also Penrose and Hameroff 1995: 109).

Nevertheless I do think there is a connection between these two puzzling phenomena which needs to be understood if we are to alleviate the feeling of mystery which surrounds them. What makes both these phenomena peculiar is that neither one fits easily within the object-based schema. Neither sits happily in the schema that has its origins in, and its primary concern with, the world of spatio-temporal objects. But this is no reason to think that there is a metaphysical or explanatory link between them. Instead, what links them is just the fact that they cannot be intelligibly accommodated within the conceptual limits of a physicalist metaphysics. Thus to the extent that we wish to take such phenomena seriously, we have reason to re-consider the physicalist presumption, that the object-based schema provides an all-encompassing standard for characterising natural phenomena. In this light it is instructive to remind ourselves that finding resolutions to both the phenomenological and metaphysical problems of consciousness are irrevocably hampered by the very acceptance of physicalism which fostered them in the first place.

5. Conclusion

In the light of the fact that consciousness cannot be understood within the object-based schema, my claim is that the metaphysical problem is not a problem to be solved, but one to be avoided or unravelled. By its very formulation, it is linked to an explanatory materialist or physicalist metaphysics. And, as we have seen, it arises in different ways for those who favour reductive and non-reductive versions of the doctrine. For this reason I propose that we must rethink the dominant

metaphysics and seek for a more tolerant naturalism. In the next chapter I compare the virtues of three such tolerant metaphysical systems: substance dualism, minimal physicalism and a version of absolute idealism. In the end, I argue that the last on the list is our best bet.

CHAPTER FIVE

Pluralistic Naturalism and Absolute Idealism

"If the doors of perception were cleansed
everything would appear as it is, infinite"

– William Blake *A Memorable Fancy*: pl. 14

1. Introduction

The standard forms of explanatory physicalism, both reductive and non-reductive, are unsatisfactory because they neither solve the phenomenological nor the metaphysical problem of consciousness. This is because they cannot intelligibly find a home for consciousness within the object-based schema; nor can they avoid this obligation by denying its existence. Therefore we must ask: What other metaphysical manoeuvres might we make in order to deal fairly with phenomenology?

2. Two Metaphysical Approaches

Once the philosophical dust has cleared, barring quietism, only three metaphysical approaches are left standing: some form of dualism or ontological pluralism, a minimal physicalism or absolute idealism. I devote this section to outlining and reviewing the first two familiar positions before critically comparing their virtues and vices to those of absolute idealism in the next section.

2.1. Ontological Pluralism and Substance Dualism

As we have seen, the fundamental problem with reductive physicalism is that its methodological ideal makes it impossible to properly understand or recognise the real character of conscious experience. Contrariwise the problem with non-reductive physicalism is not that it fails to respect the unique character of

conscious experiences, but rather, in taking them seriously, it abuses the notion of the physical. In this light there seems to be merit in taking consciousness at face value, treating talk of it as inherently separate from talk about events and processes, as described by the natural sciences, and abandoning any attempt to intelligibly bridge these two domains. Without any other commitments, this would be to adopt a form of metaphysical quietism or pragmatism.[82] Proponents of such views ask us to respect the ways in which we talk about our psychology and to eschew any deeper metaphysical projects. Thus they bid us to avoid theorising altogether and to spend our time attending to our talk as it arises in specific contexts and for specific purposes. Against the background of the preceding chapters, this approach may appear desirable. However Cussins has challenged quietists who wish to be naturalists. He asks:

> ...what is our right to ontological monism, to one world? If we operate with explanatory isolated discourse levels then we need to provide a justification for our claim that the distinct discourse levels refer to the same world (Cussins 1992a: 191).

For those tempted by the question, one obvious reply is to simply denounce monism and to advance a very naive form of tolerant ontological pluralism which postulates deep discontinuities, possibly even contradictions, in nature (cf. Dupré 1993). This would be to insist that, not only is our talk of the experiential and the physical incommensurable, but they are in fact separate in nature. The best known version of this doctrine is Cartesian substance dualism.

Substance dualism has suffered a terrible philosophical fate – not death but eternal ridicule. In this it has been treated unfairly. Substance dualism is not obviously silly – it is a subtle and sophisticated doctrine that ought not be confused with its less credible and more popular lay versions (cf. Churchland 1988: 9).[83] Nevertheless it is often so conflated, particularly by modern commentators who really ought to know better. For example, Dennett lampoons dualism by explicating the problem of psychophysical interaction by appeal to the curious antics of Casper, the Friendly Ghost (cf. Dennett 1991: 33–37). For within the space of a few consecutive frames of a cartoon strip, Casper inexplicably switches from being in an intangible state to being in a state in which he can interact with things in his physical environment. The question is: How can he do this? What enables him to make this switch? Dennett regards this as essentially the same problem faced by substance dualists. While it is, of course, true that psychophysical interaction must be addressed, whatever its rhetorical merits, it is objectionable to characterise substance dualists as postulating a kind of soul stuff which can be appropriately modelled on the picture of a ghost housed in a machine. To seriously challenge Descartes' views, it is important not to present them in caricature.

But in what way is the 'Ghost in the Machine' picture a caricature? Many suppose that Descartes clearly reifies the mind because he describes it as a kind of substance. To some this is obvious. Nevertheless it is worth emphasising, as Hamlyn does, that, "The term 'substance' is one of the most confusing terms in philosophy" (Hamlyn 1984: 60). Shortly after making this observation he suggests we would do well to understand Descartes' view of substance as that which, "...stand[s] beneath....properties" (Hamlyn 1984: 60). With reference to this definition, Cartesian dualism could be interpreted as making the simple claim that human minds are independent substances which differ from physical substances in that they stand beneath entirely different types of attributes or properties – i.e. mental attributes or properties. I think this is how many people read Descartes. Better still, however, we ought to give centre stage to Descartes' own remark that, "We can mean by *substance* nothing more than a thing existing in such a manner that it has need of no other thing to exist" (Descartes, *Principles of Philosophy*, LI). It is easy to misrepresent this claim. This is especially true today since the very notion of substance has developed such that it is almost impossible for a modern audience to hear the word without thinking of material substances and kinds. Paradigmatic examples of substances now tend to be the very stuffs of chemistry or physics. In this regard, it is interesting to note that the first entry for the word in the New Oxford Dictionary is 'a particular kind of matter with uniform properties' and is followed quickly by the definition 'real physical matter'. It is no surprise that when this understanding of substance pervades our thinking, we are irresistibly driven to misinterpret Descartes' views as crudely suggesting that he is committed to the existence of a kind of soul stuff.[84] But, strictly speaking, this is to attribute to him more than he actually said. In making a case for substance dualism his only strong claim is that the mind is independent, not that it is object-like or stuff-like. Indeed he postulates this independence on the grounds that the nature of mind and matter must be radically different. In this regard, he was wont to contrast key intellectual features of certain mental phenomena with the key features of spatially extended objects. Minds are not extended, located or divisible. Thus it is a crude misrepresentation of his position to characterise it using the 'Ghost in the Machine' picture.

Nevertheless if one eschews epiphenomenalism, then one is committed to the claim that conscious experiences make a difference in the physical world. For example when we feel pain we withdraw our hands. Yet nothing can make a difference in the physical world, unless it produces effects on physical events. And, given the metaphysical positions we are considering, we can take it as read that it is recognised that there is a connection between certain kinds of brain activity and the having of conscious experiences. Thus even if we give substance dualism a fair hearing, we might still wonder, how does the mind affect the body and *vice versa*? And, however one chooses to characterise the notion of substance, the dualist has no answer to this question. This fact is often promoted as a

sufficient reason to dismiss the position without further ado. It is also a major reason why many have been persuaded to subscribe to some version of explanatory physicalism. But since no version of explanatory physicalism is coherent, the standard charge against dualism is not as open and shut as its opponents make out.

Consider that our understanding of physical-physical interaction is ultimately no better than our understanding, or lack thereof, of psychophysical interaction (Lowe 1996, Mills 1997). If this is right, and we are not bothered about the first case, then why should we be bothered about the second? But, is this right? It would seem so, for even in cases of causal interaction between events of the same kind or same substance, we ultimately lack an explanatory account of how one thing causes another. Consider the explanation of how one billiard ball causes another to move. No matter how detailed the reductive explanation one gets in mechanics, even those given in terms of microphysics will eventually run out of steam (cf. G. Strawson 1994: 32–36). And at every progressive stage there will be some point at which we will simply need to say, for example, that we know that this x causes that y, but we don't know how or don't yet know how. Simply stated, there is always a practical limit to how well we can understand casual interaction, even between physical events. We would ultimately need to appeal to the laws of physics. But even if we can describe or predict what happens in terms of laws, it doesn't follow that we can understand or explain this interaction (cf. Lowe 1996: 52). For, at base, such laws are merely descriptive they are not explanatory. As Hill notes, "...physics itself countenances a range of primitive causal interactions – it must do so if it is to avoid postulating an infinite number of levels of explanation" (Hill 1991: 42). When we hit ontological rock-bottom, we find just the same problem in understanding causal interaction as we do in the psychophysical domain.

This conclusion is not very far from Descartes' claim that, "...the laws governing the realm of bodily interactions are expressible through mathematics, [but] the causation underlying these laws is ultimately a function of God's creative power" (Wagner 1993: 118, cf. Pietroski 1994: 359–360). As Wagner writes:

> There is nothing in the essence of body which can account for its ability to interact with mind and to cause ideas....What is also required is reference to the force which keeps it in existence. Insofar as bodies exist, they must be referred to God as the cause of their own existence and as the very ground of their own capacity to effect causal change (Wagner 1993: 117).

If we delete the reference to God and replace it with a reference to, say, the fundamental laws of nature, we can run the same argument with atheistic overtones. The point to notice is that the problem of interaction is not ultimately

special to the interaction between different substances (Lowe 1996: 71, Mills 1997: 170, 177).

Given this, Cartesian interactionists can make some ready responses to their opponents. Firstly, they can argue that psychological forces ought to be reckoned among the fundamental forces of the universe (cf. Lowe 1996: 71, Chalmers 1996, Tye 1995: 43). And if they had this status, it would be clear why we could not explain psychophysical interaction. Secondly, barring this controversial move, they could take a more aggressive stand and argue, more modestly, that in the absence of a solution to the intelligibility problem, substance dualism is no worse than physicalism in treating psychophysical causation as inexplicable. For we must remember that Descartes' claim is simply that, "We can assert *that* mind and body interact without knowing *how* they interact" (Wagner 1993: 116).

2.2. Minimal Physicalism

Before we are in position to judge properly the contest between dualism and physicalism, we must determine what constitutes the most stable and defensible version of physicalism. In chapter two I reviewed the prospects of the different brands of explanatory physicalism, reductive and non-reductive, and found them wanting. But the problems discussed therein would not apply to a physicalism shorn of explanatory ambitions. The question is: What form would this take?

2.2.1. Supervenience, Covariance and Strict Implication

Some physicalists have tried to develop a minimal physicalism by appeal to the notion of supervenience. The hope has been that this 'elegant theoretical' notion might provide a means of explicating the right logical relations of dependency that hold between the mental and the physical (cf. Kim 1978, 1979, 1982, 1984a, 1984b, 1990). Unfortunately there has been a fair deal of confusion in the literature as to the exact nature of such relationships and to what end we ought to be interested in them. By charting the differences in the various covariance theses which form the basis of the traditional forms of supervenience claims, it becomes clear in what ways the concept of supervenience admits of different interpretations, some stronger than others (cf. Charles 1992: 269, Haugeland 1982, Seager 1988, Petrie 1987, Paull and Sider 1992). Indeed there is a small army of subtly different covariance relations, which underpin standard versions of supervenience. These can be generated by: adjusting the modal force, altering the relevant *relata*, or altering the scope. Savellos and Yalçin provide an orderly line-up of the usual suspects (Savellos and Yalçin 1995: 3):

Weak covariance 1: For any possible world w and objects x and y in w, if x and y are indiscernible with respect to properties in B, they are indiscernible with respect of properties in A.

$\forall w\ \forall x\ \forall y$ ((x is in w and y is in w) $\rightarrow$ ($\forall B$ ($Bx \leftrightarrow By$) $\rightarrow$ $\forall A$ ($Ax \leftrightarrow Ay$)))

Weak covariance 2: Necessarily, if anything has some property A_i in A, there exists a property B_j in B such that the thing has B_j, and everything that has B_j has A_i.

$\Box\ \forall x\ \forall A\ (Ax \rightarrow \exists B\ (Bx\ \&\ \forall y\ (By \rightarrow Ay)))$

Strong covariance 1: For any objects x and y and worlds w_1 and w_2, if x in w_1 is B-indiscernible from y in w_2 (i.e. x has in w_1 precisely those B-properties that y has in w_2), then x in w_1 is A-indiscernible from y in w_2.

$\forall w_1\ \forall w_2\ \forall x\ \forall y$ ((x is in w_1 and y is $\forall w_2$) $\rightarrow$ ($\forall B(Bx \leftrightarrow By) \rightarrow \forall A$ ($Ax \leftrightarrow Ay$)))

Strong covariance 2: Necessarily, if anything has some property A_i in A, there exists some property B_j in B such that the thing has B_j, and necessarily, everything that has B_j has A_i.

$\Box\forall x\ \forall A\ (Ax \rightarrow \exists B\ (Bx\ \&\ \Box\ \forall y\ (By \rightarrow Ay)))$

Global covariance: For any worlds w_1 and w_2, if w_1 and w_2 are B-indiscernible, then they are A-indiscernible.

$\forall w_1\ \forall w_2\ (w_1 =_B w_2 \rightarrow w_1 =_A w_2)$

Over the years there have been several internal objections to the familiar versions of supervenience theses which rest on these covariance relations. For example, it has been argued that even though strong supervenience is compatible with an unexplained parallelism, it is too strong as it implies that one could predict the occurrence of supervenient properties solely by having knowledge of an entity's or event's subvenient properties. Alternatively, weak supervenience has been criticised for allowing the existence of possible worlds in which all the physical facts are the same as our world but in which no mental events occur at all. And global supervenience, which concerns the indiscerniblity of whole worlds, apparently suffers because it doesn't specify which differences matter to the psychophysical relationship.[85] As Kim once argued, it allows the unhappy result that if there were a possible world in which one of Saturn's rings was missing a single ammonia atom, then this world would be physically discernibile from our world. And if this were so, then it could be psychologically discernible in any other respect as well (see Kim 1987, Heil 1992 and Moser 1992). I do not wish to review all the possible replies to these charges because I think that the entire

supervenience approach is wrong-headed for more general reasons. But before I say why, it is worth considering Kirk's claim that his strict implication thesis, which concerns only the actual world, is a better way of formulating the logic of the psychophysical relation to which physicalists ought minimally commit (Kirk 1996a: 163). The thesis simply states that:

> P strictly implies Q. That is, it is impossible that P should be true and Q false (Kirk 1996a: 244, 1996b: 159, 1996c: 85).

Kirk bids us to think of P as the totality of true physical statements and Q as the totality of true mental statements. It is interesting to note that the strict implication thesis bears a striking resemblance to a perspicuous formulation of Pettit's version of physicalism. Consider Daly's explication of Petitt's physicalism. He writes:

$$((P \rightarrow M) \,\&\, P) \rightarrow M$$

Drawing this parallel is useful for it helps us to better understand that the necessity attached to the claim that physical truths strictly imply mental truths only attaches to the first conditional. The thesis is therefore compatible with the contingent fact that the relevant physical facts may or may not obtain, as expressed by the addition of the embedded conjunct (cf. Daly 1995: 136). Kirk claims it is a virtue of his thesis that it reveals the commitments of a minimal physicalism and avoids reductionism, better than the various covariance formulations advanced by advocates of supervenience (cf. Kirk 1996a: 251–252).

I have been cursory in my treatment of the above proposals because, rather than reviewing their various internal virtues and vices, I want to consider a series of general problems that ought to worry defenders of supervenience theses and the strict implication thesis, alike.

2.2.1.1. Objections to Supervenience and Strict Implication

In an extremely useful review of the supervenience literature, McLaughlin stresses that, "...the core idea of supervenience – is the idea of dependent-variation where the dependency is of a purely modal sort.....[which is] reflexive, transitive, and neither symmetrical nor asymmetrical (McLaughlin 1995: 18). This apt observation raises questions about the suitability of these formal approaches when it comes to explicating the psychophysical relation. For if one retains the idea that a minimal physicalism ought to be committed to the claim that the psychophysical relationship is one of asymmetric dependency and the claim that physics is explanatorily complete, then such accounts are not sufficient.

For example, because the covariance relations described above are non-symmetrical, endorsing any one of them, on its own, is not sufficient to support

the idea that physics is the dominant, grounding partner in the psychophysical relationship (cf. MacDonald 1995: 142). That is to say, if we only stick with the idea of a purely modal form of dependency, "...then nothing has been shown which privileges the physical as the Great Cosmic Fixer" (Daly 1995: 138). Kirk's strict implication thesis is no better on this score. For although he recognises the problem and adds a further thesis which stipulates that we cannot reverse the entailments, we are not given any explanation why this stipulation should hold (cf. Kirk 1996a: 246, 1996b: 160, 1996c: 86). In the absence of further details we are at liberty to wonder on what grounds physicalists ought to help themselves to this addendum.

Similarly, we can ask: What explains the putative covariance relations? Or, what makes it the case that a relation of strict implication holds between the physical and the mental? We cannot answer by appeal to some fact or facts describable in physical terms, since neither the supervenience theses nor the strict implication thesis enable us to logically derive M from P. The most compelling response is simply to say that nothing explains this relationship; it just is the case that such a relation holds. But, then we can ask: Is this fact supposed to be a brute physical fact? If so, why isn't it expressible in the language of physics? To accommodate this idea would require endorsement of something like the distinction between linguistic and metaphysical physicalism, which was discussed and denounced in chapter three, section 3.3.2. Another option would be to hold that it is a non-physical brute fact? But then, what kind of fact is it? Either way the explanatory completeness of physics is threatened.

Moreover, if a minimal physicalism is to offer even the promise of a solution to the metaphysical problem, its advocates need to provide more than what supervenience or the strict implication thesis provides (Kirk 1996c: 249, Klagge 1995: 60). What is required is a substantive psychophysical theory which specifies which physical changes matter psychologically and how and why they do so. Such a theory would, in principle, provide the ground for counterfactuals that would rule out certain irrelevant cases and hence would enable us to talk sensibly about, what we might call, psychologically possible worlds. As we saw, this is important, independently of concerns raised in the last few paragraphs, because unchecked talk of physically possible worlds is not sufficient for this purpose (cf. Seager 1988: 705–707, Crane and Mellor 1990: 203–205).[86] To see this, we have but to remind ourselves of the internal problems which face both the weak and global forms of supervenience, as mentioned earlier. Of course the coherence of any given version of supervenience doesn't depend on explicitly circumscribing the relevant set of subvenient physical facts. But mere coherence is not the issue here.

Given these concerns, it is generally proposed that supervenience theses and the strict implication thesis ought to be bound together with some substantial, but non-reductive psychophysical theory. For example, the hope is that they can be

tied to one which employs non-reductive notions, such as: realisation, constitution or composition (MacDonald 1995: 141–142, Moser & Trout 1995: 203–214, Poland 1994: 121–122, Kirk 1996a: 165). In this regard, it is claimed that some kind of functionalist or mereological account might fit the bill. But I have already argued in chapter three that – at least with respect to consciousness – such non-reductive explanatory supplements are not on the cards for physicalists. Yet without such supplements, it is important to recognise that purely formal accounts reveal nothing about the psychophysical relationship which could possibly help in making it intelligible or explicable.

2.2.2. The Token Identity Thesis

Given the problems with the more robust forms of physicalism, it would appear wise to advocate an even more minimal version of the doctrine; one which is only committed to an identity thesis and the kind of dependency relations that can be had from some unsupplemented covariance thesis. For example, one might endorse Davidson's token identity theory and only commit to the claim that one and the same event can have both mental and physical descriptions. The idea is that a mental description can pick out a particular event which can, in theory, be re-described in the language of an ideal physics. Davidson has tried to convince us of three things about events in order to make this account viable:

(1) We regularly refer to events in ordinary discourse.

(2) Our criterion of event identity is no worse than our criterion of identity for other ontologically basic entities such as objects.

(3) It is possible to re-describe events in just the way we re-describe objects.

I digress to briefly outline Davidson's reasons for accepting claims (1) to (3). Firstly, in support of (1), his analysis of ordinary discourse suggests that we quantify over singular terms which refer to events. Although this may not be immediately obvious, it is revealed by an analysis of the logical form of our action sentences (Davidson 1987b: 36). For example, according to Davidson, (a) is made more perspicuous by analysing it as (b):

(a) Smith kicked Jones

(b) (∃x) (kicked, (Smith, Jones, x)).

In this light, it becomes clear that we can, and regularly do, refer to events just as we refer to objects.

Secondly, in support of claim (2), given that we refer to events in ordinary language, they ought to be regarded as ontologically basic kinds on a par with objects (Davidson 1985a: 241). Moreover Davidson claims that our method for individuating events is no more or less principled than that which we employ for individuating objects. This is important, for as he says, "...unless we can make sense of assertions and denials of identity, we cannot claim to have made sense of the idea that events are particulars" (Davidson 1980: 180). Originally he proposed that we individuate events by appeal to their paradigmatically causal characters (Davidson 1980: 179). But, as Quine remarks, this method, "...purports to individuate events by quantifying over events themselves" (Quine 1985: 166). Davidson conceded this point during an interchange with Quine and in reply suggested that events could be identified as the same if they spatio-temporally coincide (Davidson 1985d: 175). This method of individuation is useful because we can still distinguish events from objects, even when the two spatio-temporally coincide. This is because events *occur* in space-time while objects *occupy* it (Davidson 1985d: 176).[87]

Finally, in support of claim (3), Davidson has argued that not only do we refer to events in everyday parlance, but – because events are ontologically basic kinds – it is possible to re-describe them. Thus I can talk about 'what happened' at the Royal Bank of Scotland, Hemel Hempstead on Tuesday at 3:10 pm as being 'a flagrant violation of the law' or as 'a most ingenious robbery'. Both of these descriptions, with their different connotations, refer to one and the same event (cf. Davidson 1980: 120). This is similar to the way in which I can re-describe objects. For example, I can speak of one and the same object as "The ostentatious thing that is blocking my driveway right now" or as "The neighbour's fantastic new sports coupé".

If we accept that events are ontologically basic kinds, then it follows that they can have multiple descriptions. With reference to Davidson's claim that particular events are individuated by their spatio-temporal occurrence, we might say an event, which is designated as occurring at time (t) and place (p), can be described, for example, as 'my feeling pain' in one discourse and also as 'physical happening x' in the language of an ideal physics. It is not necessary that these descriptions form part of a coherent, unified conceptual framework or ever will. But how an event is described matters to what other intelligible connections and conclusions we can draw about it. Noting this is especially important in the psychophysical case, since we can hold this view even while maintaining that these two ways of

describing the same event will be forever separated due to their irreconcilably different conceptual frameworks.

We must be careful here for it is true that Davidson has, occasionally, tried to motivate acceptance of his token identity theory by appeal to the idea that psychological domain is dependent on the physical. For example, he once wrote that:

> ...although I am urging that, psychological characteristics cannot be reduced to the ....[physical, biological, physiological], nevertheless they may be (and I think they are) *strongly dependent* on them. Indeed, there is a sense in which the physical characteristics of an event determine the psychological characteristics (Davidson 1980: 253, emphasis mine).

Furthermore, at times, he has appealed to the notion of supervenience to clarify the nature of this non-reductive relationship of dependency. Insofar as his remarks have led to the expectation that an explanatory account of this dependency might be grafted onto his token identity theory, this move has been misleading. Moreover there are other, less transparent reasons why Davidson's understanding of supervenience must be spelled out carefully. For example, as we have seen, many supervenience theses invoke the machinery of possible worlds. But consider that talk of logically possible worlds, in which the same event occurs, requires us to imagine a world like this one in most respects but in which certain material facts or events are different. Consider also that Davidson is adamant that he is only interested in particular events which are individuated in terms of their spatio-temporal occurrence. Yet, given his views about the nature of an ideal physics, this ties them to an unique series of other physical events both past and future (cf. Davidson 1993: 15). In effect, to talk of a particular event is to index a particular physical world. Hence, unless we are speaking of events of a similar kind, it makes no sense at all to imagine the very *same* event could occur in another physically possible world (cf. Buekens 1997). But, given Davidson's special views on the individuation of events, we must be talking about particular, token events and not types of event.

This verdict fits with his claim that his primary concern in introducing supervenience in the first place was merely to lend support to his token identity theory. Thus, in a reply to Harry Lewis, he wrote that:

> [when I introduced supervenience]...what I was arguing for....was *only* the identity of mental events with physical events. I wanted to emphasize that such ontological reduction does not imply that mental properties are physical properties, nor that there are causal or bridging laws relating events classed by mental properties with events classed by physical properties (Davidson 1985b: 243–244, emphasis mine).

Furthermore this reading fits with his attempt to make his views about supervenience clear in terms of indiscernability alone. He writes that:

> The idea I had in mind is, I think, most economically expressed as follows: a predicate p is supervenient on a set of properties S if and only if p does not distinguish any entities that cannot be distinguished by S (Davidson 1993: 4).

This reading of the supervenience claim is consistent with the token identity theory, but it clearly does not hold out the promise of an explanatory notion of dependency. Thus Davidson's version of the token identity thesis is only committed to the claim that psychophysical relations are symmetrical. Yet, given the problems faced by more ambitious versions of physicalism, Davidson's token identity theory, read without commitment to anything more than the kind of dependency provided by an unsupplemented supervenience thesis, is the most plausible and defensible form of physicalism.

Nevertheless, as I noted in chapter three, in order to make their thesis credible, identity theorists are obliged either to say how psychophysical identifications are *possible* or to provide some independent reason for making such identity claims in the absence of an explanation of this sort. With respect to the issue of consciousness, without a theory that explains how experiences might possibly be physical, we have no good reason to accept the psychophysical identity claim. Consider the illuminating parallel Papineau draws between the situation with respect to the study of consciousness and the postulation of vital spirits in order to explain the behaviour of living things. He reminds us that, "...nobody nowadays believes in vital spirits any more, not least because it is now generally accepted that the characteristic features of living systems can in principle be accounted for in physical terms" (Papineau 1993b: 181). Yet, whereas vitalism was pushed out for being explanatorily superfluous and metaphysically extravagant, consciousness is more difficult precisely because we lack the kind of explanation which would entitle us to eliminate it or to bring it within the fold of physical theorising.

Consequently, it isn't sufficient for identity theorists to claim they are under no particular obligation, "...to explain why some states are conscious and others not" (Papineau 1993b: 178). Although this is technically correct, without a workable theory of consciousness, we need an independent reason to warrant acceptance of the psychophysical identity claim. This is supplied in the form of an argument which appeals to the fact that experience is causally efficacious.

2.3. The Advantages of Monism

For the physicalist, the interaction problem is transformed into the question: How can consciousness influence and be influenced if the physical world is causally closed and not open to external influences? When confronted with this question they argue, in quickstep, that if consciousness really does influence the physical, and *vice versa*, then it must be physical in nature. This is the fast road to psychophysical identity. Indeed, it is on grounds such as these that Papineau claims that, "...the need to integrate conscious states into the causal workings of the world gives us a strong motive for identifying them with physical states" (Papineau 1993b: 175). Moreover it is a virtue of the identity theory that it alleviates the need to explain why psychophysical relations hold – for one is not obliged to explain why Φ and Ψ are one and the same, if, as a matter of fact, they are.

However this move is empty to the extent that it relies on the criterion that 'everything that has a physical effect must be physical'. For invoking this rule makes physicalism a trivial doctrine. The notion of the physical becomes too liberal to be interesting (cf. Mills 1997, Lowe 1996). Yet if we stick to the idea that we can independently define the physical in terms of its commitment to the object based schema – thereby giving the notion some prior definition – it becomes clear that the causal closure thesis is simply false. Consider a case other than that of consciousness. We cannot make the connections between the domains of quantum and classical physics intelligible within a single explanatory framework, for the reasons discussed in chapter four. Yet we also know that what happens at the quantum level makes a difference at the classical physical level (Maudlin 1997: 8). For example, we know that the changes in electrons can affect the whole atom. If electrons were as Rutherford thought them to be – if they were stable entities in orbit around the nucleus, like planets around the sun – then perhaps we might have hoped for a classically physical explanation of this interrelation. But in order to understand their tendency to jump from 'orbit to orbit' by releasing discrete packets of energy, it turns out that the behaviour of electrons cannot be fully understood under the auspices of classical mechanics (Hodgson 1991: 215–218). Even so, we recognise that there are causal interactions between the two domains. The point is that to fully understand what is going on requires that we switch, imperfectly, between two conceptually incommensurable schemas (cf. Lockwood 1989: 195–196). This result applies, *mutatis mutandis,* to the case of consciousness. Thus, if we accept that consciousness makes a difference, it follows that something paradigmatically non-physical has an external influence on the physical. This looks like metaphysical stalemate.

Yet the causal closure thesis can be defended in a more sophisticated way. Concede that an ideal physics has a global concern with anything and everything that happens in space-time such that it follows that every spatio-temporal,

individuated event has a potentially physical description. Indeed this follows, if we accept that events must be individuated by means of their spatio-temporal occurrences. Concede also that all causation, as we understand it, necessarily occurs between events which exist in space-time. From this it can be argued that the occurrence of an event can be fully and sufficiently explained within an ideal physics – at least in principle.[88] All that is required in order to accept this conclusion is that we endorse a weak version of the broadly Humean view about the nature and explanation of causation. A subscriber to such a view accepts, "...that 'A caused B' entails that there exists a causal law instantiated by some *true* descriptions of A and B" (Davidson 1980: 16, emphasis mine). Davidson originally proposed this idea in order to show that, "...it does not follow that we are able to dredge up a law if we know a singular causal statement to be true; all that follows is that there must be a covering law" (Davidson 1980: 160). He believes the covering law we require can be provided under a physical description of the events in question. Events *simpliciter* enter into causal relations even if such relations only have proper physical explanations under certain descriptions.

But does this help in resolving the causal interaction problem? No – for the minimal physicalist must still accept that the psychophysical connections have no prospect of being made intelligible. Given the incommensurable nature of the two domains in question, we cannot hope for a reduction. Nor will it do to appeal to the extensionality of causal relations in order to get us to look for this explanation under a different description – for example, in terms of physical-physical causation. For example, it may be thought that the situation is more promising if we switch to physical descriptions of the events in question and explain the causal relations between them at this level. In theory this is possible because events themselves stand in causal relations to one another, but they do not do so in virtue of their various properties (cf. McLaughlin 1993: 23). This is what licenses Davidson's claim that, "...if causality is a relation between events, then it holds between them no matter how they are described" (Davidson 1993: 6). But it is important to note that to get this result the causal relations which hold between events must be primitive and therefore cannot themselves be explained. The reason is not because our spade is turned, but rather because explanation is always an intensional matter, not an extensional one. Consequently psychophysical interaction is no better illuminated if we simply switch discourses and give ideal physical, as opposed to psychophysical, explanations of the causal relations.

Noting this is vital. It has important metaphysical consequences which are not always recognised. For example, in some instances Davidson's bias in favour of an ideal physics has caused him to enter into suspicious talk about the nature of its explanations. He sometimes talks as if such explanations would be necessarily superior to our everyday causal explanations, or indeed truer. Thus he tells us that they are not interest-relative; hence they must be contrasted with the causal explanations found in all other interest-sensitive discourses (cf. Davidson 1987b:

45, 1995: 16). These occasional remarks indicate that he sometimes thinks that what we ordinarily designate as the cause of an effect does not in fact pick out what really made it happen. It would be puzzling if even an ideal physics was able to cast interest aside, in its *explanations*, while at the same time somehow indexing all the aspects of an event that make a difference. This seems wrong for, however perfect we might think physical explanations might become for certain purposes, it must be recognised that such explanations are just as limited and interest-sensitive as all others. If this is right, then even if every spatio-temporal event had a potential physical description, it would not follow that all of their salient features could be understood within an ideal physics. If certain phenomena resist incorporation into the object-based schema, we would have reason for thinking that physical descriptions, however useful, would be incomplete, for they do not provide a transparent window through which to view every aspect of an event's nature.

The point is that the extensional manoeuvre does nothing to clear the air of the mystery that hangs over psychophysical causation. This is hardly surprising since a suitably cautious minimal physicalism makes no attempt to resolve the intelligibility problem. To solve this problem would require an explanatory theory of consciousness. The point is that postulating identities makes no advance in this regard. For merely stipulating that Ψ and Φ are identical provides no clearer understanding of psychophysical relation as understanding must occur at the level of sense (cf. Lowe 1996: 75). What then, if anything, is the advantage of endorsing minimal physicalism, as opposed to substance dualism?

Minimal physicalism is attractive, not because of explanatory superiority, but for its metaphysical economy. The fact that it is monistic enables us to postulate causal closure even if we cannot fully comprehend the nature of causal interaction in extension. But this raises the question: If monism is all we are after, what entitles us to endorse the physicalist claim that physics provides a privileged, true picture of the universe in all its nakedness (cf. Putnam 1987: ch. 1)? For this is what makes a physicalist construal of the token identity thesis questionable. The minimal physicalist is faced with the following dilemma. On the one hand, if they hold that the world in extension is nothing but the world described by an ideal physics, then how can consciousness be a genuine phenomena? On the other hand, if we reject the claim that the world in extension can be correctly characterised by any one discourse, then what is 'physicalist' about the token identity thesis? Indeed, to drop the claim that ideal physical descriptions are privileged when it comes to describing reality is, in effect, to endorse some variety of absolute idealism.

3. The Return of Absolute Idealism

What exactly is absolute idealism? It is a general metaphysical doctrine which originates from Hegel and which pre-dates the logical (and material) reductionism inspired by analytical philosophy which Russell, Moore and the early Wittgenstein begot. It was popular at the turn of the century in England with thinkers, such as: Green, McTaggart and F.H. Bradley and has other followers and forms in the continental tradition.[89] Although it is clearly not possible to give a comprehensive account of the doctrine in this space, I will settle for a broad and reasonably generic sketch of its core features. This will enable us to distinguish its two main versions.

According to the absolute idealists the object of philosophical inquiry is complete, unqualified, truth; or to put it in their language – philosophers are concerned with the Absolute Idea.[90] Metaphysically speaking, Beiser has claimed, the Absolute Idea is equivalent to the Cartesian conception of substance – that which is independent of everything else. But unlike Descartes, the absolute idealists claim that, "...only one thing can satisfy this definition: the universe as a whole" (Beiser 1993: 4). On this view, proper philosophy is concerned with nothing less than everything. Hegel and Bradley have given us two importantly different ways of formulating this core idea.

Hegel's better known version of the doctrine was designed to explain, in one coherent system, how questing after the stated object of philosophy necessarily gave rise to the peculiar course of philosophy's history. Crudely put, the explanation he gives is based on an analysis of logic which reveals the limits of our thinking. For him philosophical progression was to be understood as a particular kind of dialectical movement. He provides an example of this process in his discussion of being, nothingness and becoming. He claimed that if one entertains the idea that 'the universe is pure being', one is led to the idea that pure being is, in itself, absent of all particular qualities. To be *simpliciter,* therefore, is in fact to be nothing in particular. Hence consideration of pure being leads naturally to the idea that it is a kind of nothingness. But ironically, consideration of nothingness forces us to revise our understanding of pure being yet again. For how are we to understand the claim that something is nothing? We are eventually led to the idea that being must be thought of in terms of becoming. The point is that dialectical reasoning unifies through the modification and synthesis of earlier categories (cf. Forster 1993: 132–133; Hylton 1990: 94–95). In Hegel's eyes, the dialectical process of resolving contradictions and paradoxes of this kind, which arise due to the incompleteness of our concepts, will continue until the Absolute Idea itself is uncovered. Or rather, this is possible in principle but, practically speaking, the Absolute Idea acts as a kind of regulative ideal. Thus it is with Hegel in mind that McDowell says, "It is central to Absolute Idealism to reject the idea that the conceptual realm has an outer boundary..." (McDowell 1994: 44).

In a different way Bradley's version of the doctrine was based on his view that traditional forms of reductive metaphysics failed, and would fail, to produce a unified picture of reality (Bradley 1930: ch. 2 & 3). His attack upon such metaphysical systems concerned their inability to deliver the promised goods of a sound first philosophy because such attempts always contain contradictions. To properly understand his approach, we must bear in mind his special views on the nature of contradiction. As Mander points out, for Bradley, "...two terms or statements are contradictory if they have nothing in common. The attempt to join two quite different things together with a mere 'and' is just contradiction" (Mander 1994: 50, cf. also 45).

Since the quest for absolute truth is exclusively concerned with an explication of ultimate reality, it could allow for contradiction, in his special sense of the term. Thus ordinary judgements – which require abstraction – are inadequate when issued in a philosophical setting. No ordinary statement manages to say anything complete because it is always contextual. This is not to deny that for everyday purposes we treat most judgements as if they were absolutely true or false. The point is just that, for Bradley, when comparing this kind of truth with that for which a philosopher seeks, it is clear that the former is only true or false in varying degrees. Only relative to specific contexts and within certain parameters are statements true or false, *simpliciter*. For example, we might say that 'X is North of Y' is true. But it is only true relative to a context, for the statement only makes sense if we observe certain conventions about directional terms. Would it make sense to say that such a statement was true if we left aside such concerns? What would 'North' mean from the perspective of someone floating in space? One way of capturing the essence of this view is to consider that, in everyday life, what we judge about a situation is dependent upon our other views and presuppositions, whether we are explicitly aware of them or not. Walker emphasises this point when he characterises Bradley's reply to Russell concerning disjunctive, negative and hypothetical judgements. He writes:

> ...Bradley's own view is not that such judgements do not correspond to reality – they do that as much as any other judgements do. His view is that they correspond to reality by capturing aspects of it, but aspects which are necessarily limited and abstract, so that such judgements are never fully or completely true. Nor, of course, are any other judgements, since discursive thought is inevitably condemned to abstraction (Walker 1998: 104).

The world we describe in terms of everyday events is only conceptually accessible if it is filled out by our background assumptions. But judgements become self-contradictory if they attempt to transcend all contexts, for they are only meaningful relative to such contexts. Hence they cannot be candidates for the timeless verities of philosophy. This is why any attempt to conceptually categorise

unadulterated reality always generates irresolvable paradoxes. Given this, in conjunction with the idea that reality cannot tolerate paradox, it is concluded that although reality appears to be made up of a plurality of things, it is in fact a single undivided whole. It is only the conditional and limited judgements of ordinary life and science which make it appear as if the world is populated by separate things.

The main conclusion Bradley draws is that we are limited by the finite nature of the kinds of statements we must employ in our thinking. This applies equally to ordinary as well as scientific judgements. For instance, he maintains that the empirical sciences only deal with abstractions and hence partial truths, as contrasted to the metaphysical philosopher who seeks, but can never obtain, absolute truth (McHenry 1996: 166, Mander 1994: 21, 24). In saying this, Bradley is not casting aspersions upon our ordinary judgements or practices – not even the ordinary judgement of coming to regard *this* or *that* phenomenon as being real or not. The claim is that these practices are at best partial. For example, in his eyes, the business of ordinary life and science is bound up with describing and charting the behaviour of phenomena for practical purposes – but nothing more. These are sound practices so long as they remain metaphysically silent.

Leslie Armour puts the point in the following way, "...the final unity of the various 'aspects' of reality is 'unknown'" (Armour 1996: 127). On my reading, a better expression of this view is that reality as a whole is simply unknowable.[91] We cannot make fully adequate judgements about the world as a whole. We can only form judgements by means of abstraction and conceptualisation because we must selectively direct our attention at the world. Until we conceptualise or abstract from the whole, there can be no truth-laden judgements at all. But for this reason all sensible judgements fall short of the philosophical ideal – for the price of being able to make them is that they are always incomplete. It is not possible to talk of ultimate truths which are expressible, if reality cannot be captured, in its entirety, by our limited conceptual categories. I will discuss this issue again and in more detail when I defend Bradley's views on truth and judgement in light of contemporary concerns in the final chapter.

3.1. Two Absolute Idealist Accounts of Reality

We are now in a position to mark a crucial difference between the approaches of Bradley and Hegel. Unlike Hegel, Bradley offers no positive vision of the nature of reality other than that it is non-discursive.[92] We must remember that, in an important sense, he was a sceptical philosopher and part of his project was to introduce a healthy scepticism into the English mind.[93] As Mander notes:

> Like Hegel, Bradley thinks that thought and reality are not separate things, but, unlike Hegel, he thinks that reality is more than just thought. The real is simply the rational strikes him as a cold and lifeless idea (PL: 591). This was

> the basic Hegelian principle he could not accept, and why he was reluctant to call himself a Hegelian....This is the crucial break from pure Hegelianism and a move towards realism... (Mander 1994: 14, cf. Stock 1998: 3).

Consider the effect this had on their very different explications of the infamous claim that the Absolute is spiritual, or psychological, in nature. While both agree that reality is spiritual, they disagree about the nature of the spiritual. Bradley advanced this claim, in part, because, as he saw it, the ideal of absolute truth is just that, an ideal. The closest finite beings can come to understanding reality in its nakedness is to enjoy the rare kind of nonconceptual experiences in which no divisions or abstractions are made. We are told that, "In short, if you go back to mere unbroken feeling, you have no relations and no qualities. But if you come to what is distinct, you get relations at once" (Bradley 1930: 22). Both Mander and Armour emphasise the unusual character of such experience. They write:

> ... at no stage does Bradley mean here to appeal to what might be described as commonsense experience, the kind of window on reality that we pre-reflectively suppose ourselves to enjoy. He recognizes too well the undeniable truth that our everyday perceptual experience of the world is not simply a product of what the senses give us, but is mediated or tainted by our own input and conceptualization....Primordial feeling is a wholly preconceptual state (Mander 1994: 11, cf. Stock 1998: 5–6).

> ...Bradley's account of the basic givens of experience suggests that experience has at its base a level which is below all distinctions between mind and its objects, or between self and not-self... (Armour 1996: 123).[94]

Of course, even these rare forms of nonconceptual experience are limited in a way that the Absolute is not, but they are analogous to it in being non-discursive. The point is that such experiences are supposed to, "...provide us with a paradigm of unity in diversity..." (Baldwin 1998: 80, 8, cf. Mander 1994: 10). When we are 'driven to postulate a higher form of unity', it acts as our model (cf. Bradley 1914: 190). This helps to make sense of Armour's report that, "...An index reference in the second edition of Bradley's *Principles of Logic* tells us that reality is a 'higher form of Immediate Experience'" (Armour 1996: 124). This is directly opposed to Hegel's intellectualist characterisation of the Absolute which, to borrow Russell's apt phrase, regards it as pure thought thinking about itself.

Before moving on it is important to be clear about what this commits one to, as some philosophers may be unconvinced. It may be thought that unless we have independent access to this 'common reality' we have no reasonable grounds for speaking of such a thing. Thus the very fact that there is no neutral way to characterise such a reality ought to be enough reason to dismiss it. This is a strong

claim, for it suggests that unless we were capable of adopting a God's Eye View, there would be no sense or warrant in inferring a reality which only reveals itself in part through its aspects. The problem of trying to give a positive characterisation of reality, as it is in itself, however, is revealed by the plight of non-reductive physicalists – such as McGinn and Flanagan – who are driven to talk nonsense, by employing 'the physical' as a meaningless label for a topic neutral reality (G. Strawson 1994: 43).[95] And clearly, it is incoherent to attempt to provide a description of a topic neutral reality. To provide it, we would need to stand outside all language and all categories in such a way that we could get an uncluttered look at what was really going on. This suggestion is preposterous. We are never free from some limited perspective or other.[96]

Thankfully, as we have seen, it is not necessary to defend the View from Nowhere (or Everywhere) in order to defend aspectual talk. For, if we follow Bradley, we can forego the very idea of providing such a neutral description. To posit, or infer, the existence of an underlying reality is not to suggest that it can be independently 'seen', 'conceptualised' or 'represented'. The very idea of an unlimited perspective on reality is precisely what is denied by Bradley's version of idealism. As long as we are interested (at least initially) in the things which happen in the world – as it is accessible to us – talk about the various aspects of a particular phenomenon will be, as it were, pragmatically grounded. In this respect it is useful to remind ourselves of the ordinary contexts in which we are wont to speak of aspects, for we do not do so disinterestedly. Giving attention to aspects is a central and commonplace part of our everyday practices. For instance, I might only have eyes for economic facts; thus, if I can find no economic character or aspect to an event, it may fail to interest me altogether. Likewise I may be interested in the arrival of a plane only under certain aspects or descriptions such as: "My reaching Heathrow late" or "My first moment in England". Similarly I can be selectively interested in a given tree, either as the subject of a poem or as the focus of a botanical study.

The point of recounting these ordinary cases is to emphasise the extent to which we make appeal to aspects in our daily life. What we find interesting about an event invariably depends upon the context in which we are speaking about it, relative to our purposes and our audience. We can ask many importantly different and explanatorily useful questions about what is going on, bearing in mind that no single response can explain all the facts about an event in a context independent manner. For this reason the phenomenon in question will be initially picked out – not neutrally – but with reference to our particular projects (cf. Putnam 1987: 20). For example, I first designate that I am interested in the car crash that occurred in my street last Tuesday and then begin to give attention to the various aspects of it which may be of importance to me. Viewing matters in this light, we overcome the need to find some neutral vantage when initially speaking of aspects. If this is right, in employing different explanatory schemes and discourses, we are making

implicit reference to a single, common world. But it does not follow that such a world can be properly or completely characterised by a uniform set of our ordinary or scientific terms and concepts or even by a concatenation of all true statements.

3.1.1. Is Reality Spiritual in Nature?

Even in acknowledging this important difference between Hegel and Bradley in their attempts to characterise – or in Bradley's case, gesture at – the spiritual nature of reality, we might still wonder: What licenses them to think of reality in such terms at all? Why should we believe that reality is spiritual? The short answer is that it arguably follows from the fact that all judgement is based on experience and that, according to the absolute idealists, the object of judgement is intrinsically bound up with the act of judging. As Russell noted, this follows from the fact that they are believers in the 'unreality of separateness' (Russell 1945: 731). There can be no genuine relations other than identity between that which is not truly separate. Appearances aside, the object of judgement and the act of judging must be, in reality, part of an unified whole. Mind and world must be one. Consequently it is reasoned that reality must be spiritual, if nothing is really separate. But why, on these grounds, positively designate the Absolute as spiritual? Is this any better than confusedly regarding it as being both noumenal and physical, after the fashion of McGinn? As Mander notes, there may be a reason connected with the indubitability of the existence of sentience for making the former claim. He writes:

> The further claim that the Absolute is essentially mental or spiritual in nature is based on the consideration that, while the existence of sentience is indubitable, it is equally clear that there could be nothing independent of this, because nothing is ever independent of anything else (Mander 1991: 67).

I am convinced that, as things stand, sentience is indubitable (although I would not use this terminology). But it does not follow that reality is spiritual since, as things stand, sentience would not be but for the physical. For this reason, while I do not think this aspect of Bradley's philosophy is incoherent, I am less persuaded to defend it than are philosophers like Sprigge who regard it as being of primary interest (cf. Sprigge 1998). In contrast I am neutral on the issue of what reality is like, other than making the comparatively innocent remark that it must be analogous to nonconceptual experience in being non-discursive. What is important about Bradley's account is his rejection of the idea that reality can be understood as a collection of individual facts, as it is often conceived to be by those who emphasise a strong connection between language and reality. This is particularly relevant if we consider once again his special understanding of contradiction. Recall these applied even to cases where two things are joined by mere conjunction as opposed to some stronger link. As a result, a Tractarian world of

separate facts that simply happen to coexist would not qualify as a properly unified world for Bradley. I will have more to say on this topic in the next chapter. Nevertheless, even on this less contentious reading, it is an interesting consequence that he is revealed to be a kind of, "...hyper-empiricist" (Mander 1994: 14). For his emphasis on the experiential character of reality shows that, in an important sense, his, "...conceptual development [was] a tendency away from what is usually thought of as idealism. For there are, in traditional terms, 'realist' implications to such a story..." (Armour 1996: 126). Reality transcends our best conceptual frameworks and finite capacities for experience.

Although brief, this outline is enough to give an indication why the absolute idealists held their most characteristic view concerning metaphysics and the two main versions of the basic doctrine. The essence of both versions can be summarised as follows: Absolute idealists argue for a particular kind of appearance-reality divide. The world of separate things, the world which we inhabit, is the world of appearance. It is only partial and incomplete – while the Absolute, the world as it really is, cannot be completely described using ordinary or scientific categories. It follows that any intelligible statement must be incomplete. The value in reviewing at least this aspect of the doctrine is that it provides means for infering, or positing, the existence of a single, unified reality that underlies our multifarious, but limited discourses and categories.

3.2. The Superior Metaphysics of Absolute Idealism

We are now in a position to compare and contrast the virtues of the three metaphysical accounts on the table. When we consider the question of psychophysical interaction from a Bradleyian perspective, although we can judge that such interaction occurs, there is no prospect of explaining it in any ultimate sense. But this conclusion is no better or worse than that reached by substance dualists or minimal physicalists.

However absolute idealism, like the token identity theory, is superior to substance dualism because it is metaphysically economical. Indeed, structurally speaking, it can be understood as a form of non-physicalist identity thesis. For this reason its advocates are entitled to make the very same abductive inference that materialists make when they claim that mental events are physical events. That is to say, absolute idealists can accept the strongest version of the covariance thesis without difficulty, if this should prove necessary. They are happily placed if we should discover any perfect psychophysical correlations. Similarly they can avoid the difficulties faced by naive ontological pluralists because they are committed to the existence of a reality which underlies the various aspects of which we speak. For the very idea of multiple aspects requires there to be something to which the aspects belong.[97]

But, although, metaphysically speaking, the Bradleyian regards the mental and the physical as one and the same, they refuse to specify in what way they are the same. That is to say, one description is not privileged over the other. Nothing reveals how things stand in extension. This is an advantage for it was noted in the critique of both non-reductive and token physicalism, that it will not do to describe reality in phenomenal (e.g. physicalist), as opposed to noumenal, terms. The point is that it makes no sense to think that there are any perspective-free concepts which would apply *fully* and *directly* to reality, as it is in extension. It is a general fact that all conceptualisation involves abstraction; hence it is impossible to fully access reality by means of any discourse. The world as it is in extension cannot be intelligibly characterised in entirety by any conceptual schema. This is because it is not conceptually structured as it is.

By adopting something like Bradley's version of absolute idealism, we avoid the dualists' mistake of thinking that the experiential and the physical are metaphysically independent because they are conceptually independent. But we also avoid the materialist mistake of thinking they need be conceptually linked because metaphysically dependent. In short, we avoid thinking that any one conceptual scheme has privileged access to reality. Structurally speaking, some kind of aspectualist metaphysics appears to be what is needed in order to understand the place of consciousness in the world order.

3.2.1. Aesthetic Considerations

It can also be argued on aesthetic grounds that absolute idealism is superior to a robust minimal physicalism. Oddly enough, this is a criterion that some materialists appeal to when they wish to make a case against dualism. For example, Lycan sees the dualists' inability to solve the problem of causal interaction as being an aesthetic reason for preferring materialism (Lycan 1988: 121, 2–3). This seems wrong, for given the failure of its explanatory version, physicalism has no real edge on this front. Nevertheless, in a slightly different vein, Hill has argued that although materialism isn't formally simpler than dualism, it has the aesthetic virtue of ontological simplicity (cf. Hill 1991: 26–40).[98] He writes:

> Type materialism has no tendency to deny or deemphasize the diversity of the constituents of the universe, but it implies that there is a fundamental homogeneity at the deepest level. It also implies that the universe has a high degree of cohesiveness. It tells us that the constituents of the universe are connected by a comparatively small set of forces. In other words, type materialism represents the world as having a kind of homogeneity that is compatible with complexity and diversity, and as being highly unified and integrated (Hill 1991: 40).

For example, as Hill suggests, modern physics ultimately posits a relatively small set of elementary forces and basic constituents of the universe. But on the issue of unity, the absolute idealists decidedly have the upper hand. For physicalism isn't properly monistic because the reality isn't truly unified. That is to say, it posits more than one ultimate consituent to the universe. Galen Strawson anticipates and dismisses the standard reply to this objection when he writes:

> To this it may be replied that the elementary particles are nevertheless all physical, and in that sense of one kind. But to say that they can be classed together as single-substanced in this ways is just a verbal decision and question-begging until it is backed by a positive theoretical account of why it is correct to say they are all ultimately (constituted) of one kind (of substance) (Strawson 1994: 44).

In contrast, Bradley's account of metaphysics looks much more like Bohm's monistic, process-based vision of reality. And, apart from its beauty, Bohm argues for it on the basis of the simple observation that our most basic or elementary entities are not immune to creation or destruction. With this in mind, he argues that reality is best understood in terms of a process of becoming. He writes:

> ...it has been found that even the 'elementary particles' can be created, annihilated and transformed, and this indicates that not even these can be ultimate substances but, rather, that they too are relatively constant forms, abstracted from some deeper level of movement (Bohm 1980: 49).

In all there are at least two good reasons to prefer absolute idealism over a minimal physicalism. First it does not commit us to the problematic view that reality in extension can be rightly characterised in physical terms. Secondly, it has the aesthetic virtue of postulating a truly unified metaphysics.

3.3. Dissolving the Metaphysical Problem

In advocating a return to some version of Bradley's metaphysics as a way of dealing with the metaphysical problem of consciousness, it is important to be clear about what I am *not* proposing. Nagel often claims that unless our current science undergoes a revolution of Kuhnian proportions, there will be no hope in solving the metaphysical problem (cf. Nagel 1994). Like many he prefers to wait, with not so quiet optimism, for the development of a future science which will cause the problem to vanish. Even McGinn, despite endorsing a non-constructive naturalism, reveals a deep-seated commitment to the idea that there is a scientific

theory available to explain the psychophysical link, even if we can never know it. But it is wrong to think that we should hope for a scientific revolution in order to solve the metaphysical problem. Nor, as Dennett supposes, should we become dissatisfied with our ordinary understanding of consciousness and seek to replace it with a more streamlined theory, better suited to reduction. There is another way out. We can reject the metaphysical and philosophical assumptions that generate the problems about consciousness in the first place. It should be clear that this is my hope, for I have not attempted to solve the metaphysical problem in traditional terms, nor do I think this can be done. For this reason my tactic may look like a cheat. Yet just as tax evasion is a crime but tax avoidance is permissible in the eyes of the law, so it is with consciousness studies. The difference is that avoiding trouble here requires a change in our basic philosophical framework. My hope is to have offered a sound diagnosis of the problem, a sketch of an alternative framework and some reasons for exploring it further.

Still it may appear that there is an important tension in the account sketched above. For how can we accept, on the one hand, that our ordinary and scientific categories describe, and apply to, genuine phenomena, while at the same time hold that metaphysical reality cannot be completely represented in ordinary or scientific terms? I am aware that, for many, the strongest reason for being wary of absolute idealism is its incompatibility with a scientistic metaphysics. Yet while it is true that absolute idealism is incompatible with a metaphysics inspired by science, it is not the case that it is incompatible with a non-metaphysical understanding of the scientific enterprise. In the next chapter I spell out this distinction in more depth by contrasting the commitments of analytic philosophers and absolute idealists when it comes to understanding science.

4. Conclusion

The claim of this chapter has been that, in certain key respects, Bradley's version of absolute idealism holds out the promise of a sound pluralistic yet naturalistic metaphysical framework which is superior to both dualism and physicalism. Specifically, his approach is useful to those struggling with the metaphysical problem of consciousness. Nevertheless it is important to emphasise that in endorsing the core of Bradley's version of absolute idealism, we need not resurrect every aspect of it. Rather my claim is that, in a modified form, his metaphysics is better placed to deal with the problems of consciousness than any form of dualism or physicalism.

In the remaining chapters I defend absolute idealism against the charge that it is unfriendly to natural science. For to reject it on such grounds alone would be based either on a misreading or a philosophically question-begging understanding of science. In the next chapter I begin my defence of absolute idealism on this

score, by considering its stand on the issue of the unity and completeness of science.

CHAPTER SIX

Defending Absolute Idealism

"My book does not design to be permanent,
and will be satisfied to be negative,
so long as that word implies active questioning."

– Bradley *Appearance and Reality,* viii

1. Introduction

In the preceding chapter I argued that we can best deal with the metaphysical problem by adopting a modified version of Bradley's form of absolute idealism. However I suspect that many philosophers will baulk at accepting this proposal because they may think that absolute idealism is incompatible with our best views about science. This chapter and the next are devoted to showing that this claim is at best contentious and at worst false. Although it is clearly the case that absolute idealism is at odds with a science-based metaphysics, such as physicalism, it doesn't follow that it is at odds with our best understanding of science. That is to say, it is at odds with the view that science and metaphysics are necessarily interwoven and hence with a popular philosophical vision of science. Therefore it is the aim of this chapter to motivate a different vision of science and to establish that my reasons for advocating it are not *ad hoc*.

2. Hasn't Absolute Idealism Already Been Refuted?

It is common enough to discover that absolute idealism is no longer taken seriously as a live option. For some this may be because they believe it to have been refuted by either Russell or Moore at the turn of the century. Yet any systematic review of these early attacks upon idealism, specifically as they concern Bradley's version, reveals them to be controversial at best.

For example, in *The Principles of Mathematics*, Russell famously attacked Bradley on the grounds that he denied the reality of external relations. But this was unacceptable to Russell because he believed the postulation of such relations was necessary in order to understand mathematics (Russell 1937: 46–52, 221–226). In spelling out this charge he argues that a purely monistic approach, which reduces relations to properties of a single whole, could only countenance internal relations at best. Yet, if this was right, then we would be unable even to make sense of asymmetrical relations. For how can we distinguish aRb from bRa if external relations are not real? As Fortier says, the essential point is that, "...order depends on relations" (Fortier 1996: 33). It was recognition of this that lead Russell to reject absolute idealism as hopelessly inadequate. Fortier chronicles this historic moment and its consequences. He writes:

> Russell's break with idealism is considered a decisive point in the development of the analytic tradition in philosophy at the beginning of the twentieth century. His rejection of the doctrine of internal relations has been viewed as irrefutable coup, a death blow, to Bradley's view of relations, and to the philosophical theories built upon it (Fortier 1996: 25).

But in attacking the reality of external relations, Bradley was not suggesting that internal relations could take up their work. In thinking that this was his aim, Russell and many subsequent analytic philosophers have completely misunderstood him. For, on his account, all judgements are abstractions and hence not strictly true; thus no relations we postulate when making certain types of judgements, mathematical or otherwise, are strictly real. But his view about the ultimate unreality of relations applies equally to both external and internal varieties. He makes this point explicitly in his posthumous article "Relations", when he writes:

> Mere internal relations, then, like relations that are merely external are untenable if they make a claim to ultimate and absolute truth. But taken otherwise, and viewed as helpful makeshifts and as useful aids in the pursuit of knowledge, external and internal relations are both admissible and relatively real and true (Bradley 1969: 645).

This remark serves as yet another reminder that although we talk of various relations for certain purposes, such as when we speak of psychophysical relations, it isn't possible to make them intelligible in an ultimate sense. In this light several scholars who work on this period of philosophy openly recognise that Russell's attacks miss their mark (Bradley 1969: 642–643, Fortier 1996: 36–37, Candlish 1998: 131–132). Indeed, although different, Bradley's position is no more incoherent than that of the contemporary anti-realist.

Consider also that Wilson notes the symbolic importance of Moore's famous paper "The Refutation of Idealism" which marked, "...the point at which idealism began its retreat..." (Wilson 1996: 23). Yet the fact is that the paper is only concerned to refute idealist arguments for the claim that reality is essentially spiritual. Moreover it does so by focusing mainly on the Berkeleyian claim that *esse* is *percipi* (Moore 1922). But the version of Bradleyian absolute idealism I have been defending is not committed to either of these claims. Furthermore we must bear in mind that Moore himself later regarded the paper to be very confused and mistaken (cf. Candlish 1997: 79).

In the light of these observations, we must ask: What is the basis for the claim that absolute idealism has already been shown to be internally incoherent? My reply is that there is no such basis. As Mander says, "To every good argument advanced by Russell and Moore, there is, I would argue, an equally good idealist reply" (Mander 1991: 65). The point is that anyone who dismisses absolute idealism by appeal to its alleged past refutation, will have failed to give the doctrine a fair hearing.

3. A Tale of Two Philosophies

Even so absolute idealism will not go down well with those trained in the analytic tradition. Such resistance is to be expected since analytic philosophy developed, in part, as a reaction to absolute idealism. Today this form of metaphysics is viewed with suspicion because it is at odds with more scientifically based forms. However it cannot be rejected on these grounds alone. It must be remembered that it was not natural science that promoted the scientific standard of the real. We must ask: Which philosophical account dictated what was to count as scientific respectability (cf. Lowe 1996: 75)? For the fact is that our current criteria of what counts as proper science is not philosophically neutral. The issue is complicated precisely because the picture of science that makes absolute idealism unattractive, even incredible, was developed under the auspices of analytical philosophy and its stability rests on accepting the central tenets of that approach.

3.1. The Epistemology and Metaphysics of Analytic Philosophy

What are these central tenets? Although many philosophers pledge allegiance to analytic philosophy, they are often not very clear about what exactly this commitment entails. Dummett has recently attempted to identify two of its key assumptions. These are set out in (a) and (b), below:

a. The underlying nature of the world is revealed by an understanding of the nature of thought.

b. The underlying nature of thought is revealed, "...by an analysis of its linguistic expression" (Dummett 1993: 154).

But adherence to these two doctrines is not sufficient to capture the essence of analytic philosophy. For example the early Russell would not have accepted tenet (b) because his commitment to Platonism led him to treat language as a transparent medium through which terms were seen directly. And only when he later realised that language does obscure our metaphysical vision, during his logical atomist period, did he become interested in analysing linguistic expressions. But his hope was always to distil the metaphysically pertinent elements from the remains of our ordinary sentences. He was always hunting for underlying logical forms. Given this, Dummett's tenets are imperfect as a means of characterising the views of all those whom we regard as paradigmatic analytic philosophers.

In this light an historical investigation into the origins of analytic philosophy is clearly a more secure way of revealing the nature of the divide (cf. Hylton 1990). We must remind ourselves that analytic philosophy sprang from different sources; one in Germany and the other in England. Yet, even though it is not always recognised in the works of its founders, in both cases it was a reaction to various forms of absolute idealism which had dominated German and English philosophy at the end of the 19th and the beginning of the 20th centuries. The English strain was more perspicuously a reaction against absolute idealism. Both Russell and Moore were influenced by the doctrine in their early careers and openly rejected it as a right of passage on the way to becoming the English founders of analytical philosophy (Hacker 1996: 5-7, Griffin 1991). However the connection is less obvious in the case of Frege. He never drew direct comparisons between his philosophical approach and that of Hegel. Nevertheless as Dummett reports, "In a history of philosophy Frege would have to be classified as a member of the realist revolt against Hegelian idealism" (Dummett 1978: 88). Even so he qualifies this remark by saying, "...apart from [Frege's] assault on psychologism, Frege barely troubled to attack idealism at all: he simply passed it by" (Dummett 1978: 88).

On these grounds Monk has argued that the real mark of an analytical philosopher is not that they are committed to linguistic analysis, but rather that they are committed to analysis *simpliciter* (Monk 1996: 11). Monk makes this point in a way which highlights the real tension between the analytic tradition and absolute idealism perfectly. He writes:

> Russell once said that there had only been one major revolution in his philosophical development, one great division in his work, and that was when he abandoned Hegelianism. One way of describing this revolution would be to say that it was when he abandoned the method of synthesis in favour of that of analysis, when he at last became persuaded that analysis was *not*, after all, falsification. There are, Russell, was fond of saying, just two types of

> philosophers: those that think of the world as a bowl of jelly and those who think of it as a bucket of shot. The great revolution in his thinking came when he himself gave up the jelly in favour of the shot (Monk 1997: 41–42).

The important question is: Which views about the nature of philosophy were at stake in this transition? Which were explicitly rejected or passed by? To summarise the point of contrast, unlike the absolute idealists, the early analytic philosophers claimed that:

(l) Psychologism is false. In accord with this they held that the objects of judgement are distinct from acts of judging. Hence the objects of thought (i.e. propositions) are objective, mind-independent entities which exist whether or not any thinkers exist.

(2) Pluarlism is true. The world is composed of many separate real things and external relations exist between these things.

(3) Radical scepticism is false. The question of how we know the truth of our judgements does not arise as a special problem. The possibility of knowledge is taken for granted. It is attainable, in principle. For example, Dummett credits Frege with being the first modern philosopher to dethrone epistemology as first philosophy.[99]

From these views it follows that there are many elements of reality, at base, and that our knowledge of the facts of reality is, in principle, available in piecemeal fashion. Thus it is supposedly possible to determine the truth of a proposition, or body of propositions, independently of knowing the truth of any other or others. Our ordinary ways of thinking and our scientific theorising are potentially truth-yielding, in an absolute sense, despite the fact that they tell only a part of a larger story.[100] For example, Frege held that any discourse which was concerned with truth ought to be regarded as scientific, where the term has a broader historical connotation linking it specifically with truth. Importantly the idea that statements or propositions admit of degrees of truth was rejected. Propositions were regarded as determinably true or false. This is known as the principle of bivalence because it rests on the acceptance of a logic with only two possible values.

It is easy to see that analytic philosophy avocates an epistemology and metaphysics that encourages divide-and-conquer specialisations. It effectively likens the human epistemic situation to that of a group of people trying to solve a giant jigsaw puzzle. In formulating our picture of reality, we must sort through a fixed number of neatly carved pieces. For this reason, provided you work carefully on your section and I on mine, there will be no problem in linking them together in the end to produce the whole picture (cf. Einstein and Infeld 1961: 3–5, Kitcher 1993: 112). For analytic philosophers there is no bar, in principle, to

obtaining substantial knowledge of reality of the kind heralded by growing modern science. Indeed, despite shifts in the philosophy of science that took us from logical positivism to logical empiricism and then onto physicalism, we can see that there has been a continued, if implicit, acceptance of the essential metaphysical vision of the early analytic philosophers. For example, compare the jigsaw metaphor with Kitcher's remarks about the golden days of the philosophy of science. He writes:

> ...there was a view of science that commanded widespread popular and academic assent. The view deserves a name. I shall call it "Legend"....According to Legend....[s]ucessive generations of scientists have filled in more and more parts of the COMPLETE TRUE STORY OF THE WORLD... (Kitcher 1993: 3).

It should be clear that early analytic philosophy inspired this traditional, and still dominant, picture of science. Moreover, it is this picture that underlies the debate in the philosophy of mind. Commitment to Legend provides the strongest reason for preferring physicalism over absolute idealism. For in contrast, the absolute idealists deny that our limited scientific ways of thinking could ever provide complete, absolute truth. To return to the image of reality as a giant jigsaw puzzle, they claim that if we review our epistemic position with respect to reality, we have reason to think that it is not neatly cut up, that we do not have all the pieces and that the pieces in any one section may or may not fit together – or if they do, they may not fit with those of any other section – or if they do, whole sections may never fit together with each other. On this view our take on reality remains forever limited and incomplete, however useful we find it. Even stated in this abbreviated form, it becomes clear that at the epicentre of this debate lies the idea that science has the legendary end of providing complete truth and that it might, one day, achieve this end. Note however that it is a key point of consensus between both camps that they agree that, metaphysically speaking, truth must be absolute.

3.2. Bradley's Absolute and Relative Truths

Leemon McHenry has recently attempted to evaluate the plausibility of Bradley's metaphysics by comparing it with naturalised approaches. In the course of his analysis, he draws an important distinction between two kinds of metaphysical project, which he labels, "... 'pure' and 'naturalized' metaphysics..." (McHenry 1996: 159). The pure metaphysician approaches his task by appeal to pure thinking alone. And although McHenry defines the method as being *a priori* in character, he is content to put Bradley among their ranks because, despite the negative character of his project, the latter is concerned to produce a metaphysics

that is, "...uncontaminated by the results of the empirical sciences" (McHenry 1996: 160). This is directly contrasted with the approach of the naturalised metaphysician who employs the theories of modern science as a general guide to a metaphysics.[101] Specifically he identifies both modest Quinean and the more ambitious Whiteheadian versions of naturalised metaphysics as being in conflict with Bradley's account.[102]

I question McHenry's characterisation of Bradley's project because ignoring its negative nature is no small issue. Nevertheless there is evidence that Bradley would certainly have distinguished his approach to metaphysics from that of those inspired by the natural sciences. For he maintained that the empirical sciences only deal with abstractions and, hence partial truths. This is opposed to the philosopher who seeks, but never completely obtains, absolute truth (McHenry 1996: 166, Mander 1994: 21, 24). As Armour writes:

> ...Bradley makes a distinction between absolute and relative truths.... Absolute truths are those which apply to the whole universe, while relative truths to particular parts of it (Armour 1996: 118).

Unsurprisingly Bradley's views on truth are not easy to capture in terms of the standard theories on offer in the analytic tradition. However it is clear enough that he does not endorse the familiar versions of correspondence theory, although Walker claims that he advances a special version of it. His ground for making this claim is that Bradley's rejection of standard forms of correspondence theory was based on the fact that because discrete judgements had to correspond to discrete facts, they could only capture aspects of reality never the whole of it (cf. Walker 1998: 103–104). But the point is that even if we regard truth as a correspondence between the most comprehensive judgement and reality, we are faced with the problem that this requires the existence of two things not one, each occupying a place on different sides of the equation. Yet Bradley held that what goes on the right-hand side of the equation cannot simply be a *description* of reality, or the Absolute. For to properly capture the real, we must not leave anything out in the way a mere description would. Hence, to properly characterise the Absolute we must go beyond the truth and falsity of our ordinary judgements – we must go beyond all difference. For this reason the very idea of correspondence won't do when it comes to understanding ultimate truth.

Nor should he be thought of as advocating a coherentist theory of truth. This is a common confusion because he insists that coherence, understood in terms of comprehensiveness, is a test or criterion for truth. Thus any judgement which is contradictory or incoherent with respect to what is true, cannot itself be true. Nevertheless truth itself does not reduce to mere coherence, even in the widest sense of the term (Bradley 1914: 202–203, 219–220, Walker 1998: 99, 106–107).

Baldwin gets closest to Bradley's view when he says that he is a special kind of identity theorist about truth. Bradley explicitly espouses this view when he writes:

> Our one hope lies in taking courage to embrace the result that reality is not outside truth. The identity of truth knowledge and reality, whatever difficulty that may bring, must be taken as necessary and fundamental. Or at least we have been driven to choose between this and nothing (Bradley 1914: 113).

He boldly identifies truth with reality itself because he believed anything less would make absolute truth somehow defective and incomplete (cf. Baldwin 1991: 36). But if truth is equivalent to reality, we must ask what kind of truth are we talking about? This question is vital given that Bradley rejected the idea that the final truth could simply be the spliced, purely descriptive, end product of scientific inquiry (cf. Baldwin 1991: 38). We can see what is at stake here if we consider Griffin's recent attempt to render Russell's critique more plausible by treating the monistic theory of internal relations as applying to the universe as a whole. I have already said why Russell's criticism is inherently wrongheaded and Griffin's proposal does nothing to address its central flaws, but it does provide an effective way of explicating Bradley's identity theory of truth. Griffin notes that, "...if *n* is the total number of items in one's universe of discourse, then it is possible to frame a complete description of one's universe by a single *n*-adic relation" (Griffin 1998: 160). This description is supposed to be equivalent to, "...the sort of judgement which Bradley thinks has the highest degree of truth: a judgement in which a single comprehensive content is predicated of the Absolute" (Griffin 1998: 161). But the point is that, for all its comprehensiveness, even a maximally inclusive proposition, such as this, would not be strictly true. Again this is because it would not be the same as the real. It would leave something out. For, *contra* Hegel, according to Bradley, reality is not discursive or intellectual in form (Baldwin 1991: 40, Mander 1994: 30, 34). At best absolute truth is analogous to a kind of undivided nonconceptual experience. For this reason Walker cautions us that:

> ...it is not helpful to see him as a proponent of the identity theory of truth, despite the fact that he equates Reality with the Truth. For Bradley the Truth, so conceived, is not, and could never be, a property of judgements....[because] discursive thought, in aiming at truth, points beyond itself, and the ideal of truth can never be fully achieved by any judgement (Walker 1998: 96–97)

If we accept that reality is nondiscursive and nonconceptual in nature, and that absolute truth and reality are identical, it becomes clear why there can be no absolutely true judgements. As Mander notes:

> The problem is discussed and solved in chapter XV of *Appearance and Reality*. This crucial chapter, he says, 'contains the main thesis of this work' (AR 493)....If thought asserted the existence of any content which was not an actual or possible object of thought – certainly that assertion in my judgement, would contradict itself.' But, he continues, 'the Other which I maintain, is not any such content' (AR 155). It is not anything that can be known, but we still know it must exist (Mander 1994: 32, 33).

This leads directly to the idea, surveyed in the previous chapter, that the truths of ordinary life and science are only true relative to contexts. They require judgement and abstraction. Thus when compared to the absolute truth that equates with reality, they carry only a degree of truth. Russell famously ridiculed this idea because he thought it preposterous that we were never in a position to know the whole truth about any ordinary matter. He lampooned Bradley's position by suggesting that it would commit us to saying of a manifestly white chair that it is really only partly white. This is, of course, a complete misrepresentation of the doctrine. What Bradley proposed was that all categorical judgements are strictly speaking false and that our ordinary and scientific judgements are conditional, not categorical (cf. Allard 1996). He puts the point plainly when he writes:

> Our thoughts certainly, for some purposes, may be taken as wholly false or again as quite accurate; but truth and error, measured by the Absolute, must each be subject to degree. Our judgements, in a word, can never reach as far as perfect truth, and must be content merely to enjoy more or less of Validity. I do not simply mean by this term that, for working purposes, our judgements are admissible and will pass. I mean that less or more they actually possess the character and type of absolute truth and reality (Bradley 1930: 321).

The doctrine that truth comes in degrees, seen correctly as the idea that judgements are conditional not categorical, is not such a strange animal. Rather it is a domesticated pet view of many of today's philosophers (cf. Putnam 1990: 20, Rorty 1998a: 43). For who would deny that our everyday truths are at best partial if compared to an absolute standard.

4. Bradley's Philosophy of Science

With the distinction between absolute and relative truth firmly in mind, it becomes clear why Bradley was inclined to the view that the business of science really is just the practical charting and explaining of the behaviour of phenomena, and nothing more. In this respect he accepts that science is, "...useful and is indeed quite necessary" (Bradley 1930: 109). Thus he writes of the scientific enterprise:

> 'Why', it might be said, 'should we trouble ourselves to seek for a unity? Why do things not go on very well as they are? We really want no substance or activity, or anything else of the kind. For phenomena and their laws are all that science requires.' Such a view may be called Phenomenalism (Bradley 1930: 105).[103]

Yet he goes on to emphasise that, "...when Phenomenalism loses its head and, becoming blatant, steps forward as a theory of first principles, then it is really not respectable. The best that can be said of its pretensions is that they are ridiculous." (Bradley 1930: 109). It is important to note the scope of his target. The phenomenalism of which he speaks is not restricted merely to the kinds of positivistic theories popular in the early part of this century. His critique was not limited to theories of sense-data and the like. It applies to more than just the kind of empirical anti-realism which denies that science ought to be committed to the existence of non-observable phenomena (cf. Van Frasseen 1981, Glymour 1984: 174–175, McMullin 1984). He regarded all peddlers in relative truths as phenomenalistic, hence the term applies equally well to an ontologically based physicalism. For Bradley, the common failing of all phenomenalist accounts is that they make the mistake of treating abstractions, or appearances, as if they were reality.

This is important, for confusion on this score is the basis for McHenry's claim that Bradley mis-conceived the ambitions of science due to his limited grasp of its nature. Thus, *contra* Bradley, he claims that science is generally concerned with more than mere descriptions of or practical engagements with phenomena, in that it frequently postulates deep theories about the nature of an unseen reality. He writes:

> Scientific theories often pass beyond phenomena altogether to postulate an unseen world whose detailed workings explain and unite diverse phenomenal effects (McHenry 1996: 170, cf. 171).

There is no doubt that McHenry's is a common characterisation of the scientific enterprise. Moreover it is a picture of the nature of science that is frequently endorsed by naturalistic philosophers in the analytic tradition and defended by

scientific realists. But, as we have just seen, even if a sturdy case can be made against empirical anti-realism. Bradley's critique still applies to these other views as well. I repeat, all scientific theories are phenomenalistic to the extent that they trade in partial truths. This charge applies generally, even to those theories which postulate non-observables and theoretical entities.

With this in mind, I devote the remainder of this chapter and the whole of the next to challenging the second conjunct of McHenry's claim that, "Bradley has been a formidable opponent for naturalized metaphysics, but his own conception of pure metaphysics has shown to be flawed in several important respects." (McHenry 1996: 175). In the next chapter I take up issues concerning truth as it relates to the end of science; but here I want to focus on the idea that science can provide a complete and unified theory of reality. It was appraising the prospect of having such an account of metaphysical unity that primarily exercised Bradley. He based his own negative conclusions about traditional metaphysics on a handful of arguments designed to reveal their essentially contradictory nature and their failure to produce unity (Bradley 1930: ch. 2–3). He remarked that:

> We have found, so far, that we have not be able to arrive at reality. The various ways, in which things have been taken up, have all failed to give more than mere appearance. Whatever we have tried has turned out something which, on investigation, has been proved to contradict itself (Bradley 1930: 110).

I suggest a parallel critique can be made against the claim that science will provide a complete and unified theory of reality. We must ask: What kind of metaphysical completeness, if any at all, can we expect the sciences to deliver?

4.1. Does Science Seek Unity?

McHenry claims that, "Science is just as concerned with consistency as is metaphysics" (McHenry 1996: 169). Thus I want to focus on the claim that science will provide more than the kind of disunity that Bradley's understanding of phenomenalism implies (cf. McHenry 1996: 169, Bradley 1930: 105). In doing so, I argue that, in fact, it cannot. Hence the position advanced here is methodologically parallel to that of Bradley's. His attack upon traditional metaphysical systems was not based on a misunderstanding of their ends; it was an assessment of their ability to deliver. Similarly the mere fact that science is often thought to be our best guide to a consistent, unified metaphysics is not a reliable indicator that it is so. In all, if I am correct, McHenry and his supporters have only prepared another set of victims for Bradleyian analysis. If we accept that naturalised metaphysics aims to be a consistent metaphysics then the question is: How well does it achieve this end?

Consider Armstrong's apt appraisal of the situation in which analytic philosophers find themselves. He notes, "...a philosophy that divides the world must make provision for its unity. What provision have we made?" (Armstrong 1997: 263). In response to this rhetorical question he reviews several possibilities for potentially unifying a world that is really nothing more than a collection of states of affairs. The two standard proposals are that (1) the world just is the totality of all states of affairs and that (2) the totality of states of affairs is unified by law. The first idea is, in effect, expressed in the *Tractatus*. Wittgenstein writes:

> [4.11] The totality of true propositions is the whole of natural science (or the whole corpus of the natural sciences).

According to this vision, science is nothing more than the set of all true statements. Today many philosophers would reject this on the grounds that science ought to be concerned with significant statements rather than merely true ones (cf. Kitcher 1993: 94–95). But on the metaphysical front, it is much more damning for such a view that on this picture there is nothing particularly unified about the world described by science. For as Armstrong rightly asks:

> Do totality states of affairs, and in particular, the grand totality state of affairs, provide unity? We have seen that, in the absence of totality states of affairs, mere conjunctions of states of affairs do not provide for any setting of limits....That conjunction of states of affairs, we have argued, is not a sufficient truthmaker for the truth that the conjunction contains *all* the properties of the thing....Totality states of affairs may therefore be said, in some weak sense, to unify the lower-order states of affairs that they set a limit to. But it is a weak sense only because what it thus 'unified' may not be unified in any other way (Armstrong 1997: 266).

Armstrong recognises that a merely stipulated completeness is metaphysically unfulfiling. To fully understand this complaint, in connection with Bradley's critique, we must remind ourselves of the latter's special views on the nature of contradiction. For if states of affairs are linked by nothing more than the metaphysical equivalent of 'mere conjunction', then reality is not unified. If this is the only kind of unity science can offer, it would provide a disjointed basis for metaphysics.

However even in the heyday of positivism, when many would have endorsed the Tractarian picture of science as encompassing all empirically true statements, a further thesis concerning the unity of science was advanced. The positivists' interest in unity, as linked to their concern with reduction, is generally shared by today's physicalists. Positivists and physicalists generally agreed that reduction is vital, despite the fact that they differ in their views about what the end product of

reduction ought to be. This may not be entirely obvious. As Dupré notes, "For classical positivism, reductionism refers to the attempt to ground knowledge entirely in the simplest possible observation statements, so as to eliminate any dubious inferences beyond the observable" (Dupré 1993: 8). In this sense, he is right to emphasise that, "...this project....is far removed from the reduction of scientific to theories of the microphysical....[on the grounds that,] whereas positivistic reduction is strictly and intentionally epistemological, contemporary theory reduction, presupposing a structural hierarchy down to microphysics, is thoroughly ontological" (Dupré 1993: 8). Yet, despite the switch from epistemological to ontological concerns, the two approaches are structurally isomorphic and are driven by the same methodological ideal. They share the same presumptions about the nature and potential unity of science (cf. McMullin 1984: 9).[104] In this light we can see that adherence to some residual positivistic views is a crucial feature of, at least, reductive physicalism, which it inherited from its anti-metaphysical ancestor. Indeed this is clearly illustrated by the accounts of reduction outlined in chapter three, section 3.

However, even noting this commitment to a common methodological ideal, it is important, when assessing the issue of unity, to note the post-positivistic developments concerning our understanding of the role statements play in relation to theories. Since positivism's demise, it has been generally held that scientific propositions do not relate to the world separately. Rather they stand together as a body and their truth or falsity depends on the truth or falsity of theories of which they are a part.[105] Using a similar logic, it is also generally supposed that all true theories must likewise hang together in the end. Ideally, all good theories should reduce to a single, grandly unified theory by reducing the laws of respectable higher level theories in the special sciences to the laws of the basic sciences – presumably fundamental physics. Thus, for the reductive physicalist, an ideal physics would provide this single theory. Armstrong explicitly recognises that this is the analytic philosopher's best hope for unity. He writes:

> In the physicalist 'dream of a final theory' a single unified equation is the sole fundamental law. It is laws above anything else that give the world its unity (Armstrong 1997: 267).

The point is that unless all theories reduce to a single theory – a single equation – we would be left with nothing more than a complex sentence of all the true propositions joined by mere conjunction. Or, if we were luckier, we would be left with a series of theoretically unified sub-sets of true propositions which would be cojoined with other such sub-sets by mere conjunction. In this light, it is an important question whether or not non-reductive and minimal physicalists can endorse anything better than a 'collage vision of reality', since they deny that any grander unification is in the offing. I have already argued that the incongruous

nature and ineliminablity of content and consciousness are sufficient to cast doubt on the possibility of a unified science in the form of an ideal physics. In the next section I will discuss two cases from within the philosophy of science that raise independent doubt concerning this possibility.

4.2. The Case for A Disunified Science

In his book, *The Disorder of Things*, John Dupré discusses the kind of conflict that can arise between the taxonomies of ordinary language and science when it comes to carving up our familiar natural world. He describes several cases of conflict in which scientific taxonomy fails to mirror ordinary usage because it is either too specific or too general. For example, there is no principled way to capture the scope of our everyday deployment of the term 'lily' in scientific taxonomy. On the one hand, botanists fix on only one exemplar of the species as ordinarily recognised. On the other hand, it encompasses the whole genus. Thus they sometimes exclude too many things from the class to which our term normally refers, while at other times they go so far as to include such things as onions and garlics under the heading. Such cases of incongruity are common. Consider, for instance, the distinction between *rabbits* and *hares*. These categories are invisible to those sciences which carve things up in terms of evolutionary heritage or physiology. Nevertheless, as Dupré notes, there are good grounds for drawing this distinction in everyday life (Dupré 1993: 28–29).

There is a ready response to this apparent problem. For in traditional terms a proper metaphysical taxonomy ought to be both (i) orderly and (ii) natural.[106] Thus it might be argued, against this background, that our quotidian scheme of classification is merely functional, practical and need-driven. For this very reason everyday schemas are subordinate to more rigorous scientific schemas. However, through a number of examples, Dupré shows that similar contradictions arise even within science. Hence, by appeal to the same reasoning that is used to discredit our ordinary categories, he argues that there are no natural kinds, only practical ones (cf. Churchland 1989: 294–295). He makes this case largely by focusing on conflicts within the biological sciences where questions about what constitutes a 'correct' or 'unified' taxonomy are rife. In order to illustrate the problem, I focus on just one facet of the debate over the nature of species.

Species need to be treated as well-defined individuals in evolutionary theory. To meet the demands of the theory it is necessary to individuate them in terms of their historical lineage. In the words of David Hull, "The point I wish to argue is that genes, organisms and species, as they function in evolutionary processes, are necessarily spatiotemporally localised individuals. They could not perform the functions which they perform if they were not" (Hull 1994: 195).[107] He insists that species' names, as they appear in evolutionary theory, are best understood as

proper names, and he claims, "A taxon has the name it has in virtue of the naming ceremony, not in virtue of any trait or traits it might have" (Hull 1994: 206).[108]

But the concept of species also makes an appearance in ecologically motivated biology which is concerned with the interaction between types of creature in given nichés. Here membership in a species is determined by shared characteristics in such a way that requires individuation by appeal to roles and types rather than by appeal to historical lineage. This is because ecologists are interested in classifying the objects of their concern in terms, such as predator-types and prey-types in relation to a particular environment. In doing so, they do not necessarily respect, and in some cases, simply flout evolutionary classifications.[109] Consequently, if Hull's analysis is even roughly correct, the role the concept of species plays in these two biological sciences is very different and potentially conflicting.[110] The potential for conflict becomes apparent when we consider that it is always possible that, "...the occupants of a particular niché do not coincide with the members of a particular genealogical line" (Dupré 1993: 43).[111] If one were seeking to impose metaphysical order on these classificatory schemes, one could take one of two views. Dupré charts the options, as follows:

> Hull cites Chiselin and Mayr in support of a view with which he concurs, as agreeing that 'the actors in the evolutionary play must be genealogical. Only their roles are defined in terms of ecology'....But could one not equally well say: 'The actors in the ecological play must be ecological. Only their pedigrees are defined in terms of genealogy?' (Dupré 1993: 43).

The point is that, without appeal to the specific concerns of the evolutionary theorist or the ecologist, there is no independent and principled way to determine which of these two schemas ought to be regarded as the more natural. Indeed, just like our commonsense categories, they appear to be merely practical. Order can be imposed but any such imposition would be arbitrary. But, unlike cases in which we might wish to favour science over commonsense, this is an instance of intra-scientific conflict and so cannot be resolved by appeal to the authority of science. Given that we are dealing with two branches of biology, we might wonder on what grounds should we prefer one over the other?

Nevertheless it may be thought that because biology is a non-basic science, it is possible that such differences will iron themselves out once we reach rock-bottom. But the situation of conflict is even more pronounced in the domain of modern theoretical physics. Ironically, the debate that occurs there, between two different physical sciences – classical and quantum physics – is one about how fundamental reality ought to be construed. As we have already seen, in chapter four, quantum mechanics resists treatment within the familiar classical categories. This fact is not trivial for those who regard physical science as holding out the promise of a universal metaphysical system. In conjunction with McHenry's claim that science

and metaphysics have a mutual aim, it is interesting to note that many physicists, "...simply assume a realist interpretation of theories and make the leap from physics to metaphysics without a moment's second thought" (Folse 1996: 121). It is against this background that a number of interpretations of quantum physics have taken root. Chalmers provides an useful summary of the possible ways in which we might try to interpret quantum mechanical phenomena. Without concern for detail, the main options in the logical space have the following important features.

The first option is to simply take the two-worlds hypothesis literally and attempt to find a suitable explanation of the collapse of the wave function in the hopes of understanding how these two disparate realities inter-relate. This has been a popular approach and there are many working theories about how it might be achieved (cf. Lockwood 1989: 206–208). However it is worth noting that this response simply admits that metaphysics is disunified and, at best, it proposes a wait-and-see solution to the problem of the collapse. It is not unlike endorsing psychophysical dualism and hoping for a compatablist solution to the problem of mind-body interactionism (cf. Maudlin 1997: 8).

A second option, probably the most optimistic, attempts to reconcile the conflict between these two competing schemes, by postulating hidden quantum variables. The thought is that if such variables existed, and if we had access to them, it would become clear that the quantum world actually behaves in a classical way. The idea is that our current picture of the quantum domain is mere appearance and the reality behind it is still essentially classical. But this view has been much discredited among quantum theorists (cf. Heisenberg 1958: ch. II).[112] For example, it has been shown that such hidden variables would need to be contextual in order to account for such quantum features as non-locality. Thus, as Lockwood notes:

> It is not so much that it is impossible to give a hidden variable interpretation of quantum mechanics (as von Neumann, for example, mistakenly believed). It is rather that the price of adopting such a theory has been shown to be too high (Lockwood 1989: 204).

Another more radical option, expounded by Everett, has been to redefine reality in quantum terms. Thus, in direct opposition to the previous suggestion, the thought here is that we ought to accept quantum mechanics as defining the real and treat the ordinary physical world as mere appearance (cf. Chalmers 1996: 346, Maudlin 1997: 12, cf. Putnam 1990: 7). This position is often labelled the many worlds hypothesis. However it is not really about many worlds; rather its aim is to provide an alternative understanding of the metaphysics of our 'one big world' (cf. Chalmers 1996: 347). This turns things on their head because, as discussed in chapter four, talk of realism often implicitly presupposes the object-based schema.

For this reason it is at odds with our familiar picture of things. Lockwood hits the nail on the head when he writes:

> ...given a suitable coupling, any microscopic superposition can be made to generate a macroscopic one. You cannot, if quantum mechanics is universally applicable, have one without the other. Many people, no doubt, will take that fact to show that quantum mechanics cannot, after all, be universally applicable. Well, perhaps not. But the burden of my argument has been to show that there is nothing in the character of our ordinary experience that constitutes a shred of evidence that quantum mechanics does in fact break down at the macroscopic level. What is inconsistent with the universal applicability of quantum mechanics is not our ordinary experience as such, but *the common-sense way of interpreting it* (Lockwood 1989: 224, emphasis mine).

If we take Everett's picture very seriously, then even the language of superposition is misleading to the extent it presupposes a classical picture of discrete states which are merely superposed upon one another like a series of photographic negatives. Given the natural home of the language of things and events, this is the only way we can 'make sense of' what we are being asked to imagine. Such a problem does not arise if we allow the mathematics to speak for itself; which is to say it will remain silent on matters metaphysical.

Finally there is a seemingly more anti-realist response to the problem. Following Bohr, some have endorsed the idea that there are simply two different, but complementary ways of talking about physical phenomena – neither of which should be treated as metaphysically sovereign.[113] Indeed as Folse notes, "...the long reigning orthodoxy among physicists and many philosophers has been to see the quantum revolution as a triumph for anti-realism and the nullification of any ontological discourse about the mircolevel" (Folse 1996: 121). The point, as Chalmers puts it, is that this response amounts to the admission that there is, "...no fact of the matter about what is going on in the world" (Chalmers 1996: 342).

Naturally certain of these interpretations can be made more or less plausible than others, given certain other assumptions; but what interests me is the pattern of possible positions. Firstly, we must note that many modern philosophers tend to favour a vision of reality that is grounded in the object-based schema, thanks to an implicit physicalist sympathy. For them the real always stands in the shadow of macroscopic, physical objects. But taking quantum physics seriously demonstrates that it is possible to adopt other scientifically inspired attitudes towards the real. In such cases we find that it is the familiar, classical world which is made ideal or forced to become an abstraction. Secondly, the choice between competing visions of what ought to count as the universal standard of reality is

logically arbitrary. The only way to resolve the tension is to force one domain or the other into the realm of abstraction or to find some way to show that they can co-exist separately while being, nevertheless, in harmonious interaction. But, as any choice we make in this regard is arbitrary, we cannot rest contented. Such a metaphysics fails to satisfy (cf. Mander 1994: 6–9). Nothing in the sciences of classical or quantum physics, themselves, enables us to decide the proper basis for metaphysics. If this is correct, then when we attempt to give a complete and unified picture of reality by relying on the results of 'current scientific theorising'; we find that we meet contradictions (minimally in Bradley's sense of being unable to do better than offer mere conjunctions).

There are three general lessons to be gleaned from consideration of these and like cases. Firstly, these tensions give contemporary support to Bradley's presupposition that, when construed metaphysically, ordinary and scientific phenomena become contradictory. But this leaves more than one metaphysical option open to us. For example, because Dupré does not make the Bradleyian assumption that reality (in itself) will not tolerate contradiction or incongruity, he concludes that such cases reveal, "...the kind of metaphysical disunity that underlies the necessity of a disunified science" (Dupré 1993: 43). On this ground he maintains that a scientifically-based metaphysics ought to endorse a promiscuous ontological pluralism. As he sees it, there are good reasons to think that if we employ the sciences as our sole guides to metaphysics, then the world may (or may just as well) be co-extensive with a world of Bradleyian appearances. This is one way of staying true to the idea that science is not merely a pragmatic enterprise concerned only with the charting of phenomena. But its price is a disorderly, disunified universe. A reality that is metaphysically inconsistent at root is hardly the result most naturalised metaphysicians were hoping for. For example, it is not clear that even McHenry would wish to endorse this form of radical pluralism over Bradleyian monism, if these were the only options. Hence if we accept the idea that reality is not contradictory or more generally inconsistent, then absolute idealism becomes more than merely a live option; it becomes an attractive one.

Secondly, if we accept this analysis, it puts paid to the suggestion that Bradley was wrong to think that science and metaphysics have different functions (McHenry 1996: 171). For even if the sciences generally seek for unity, they are not irredeemably scarred if they fail to obtain it. But metaphysics is not permitted this degree of laxity.

Finally, consideration of these cases ought to cast doubt on the idea that Bradley's view of science was simply a product of his, "...knowledge of the science of his time" (McHenry 1996: 173). In making this charge, McHenry concedes that Newtonian mechanics might well inspire an instrumental or pragmatic vision of science but he goes on to claim that an examination of contemporary theoretical physics shows that the scientific enterprise is not merely

pragmatic (cf. McMullin 1984: 10–11). He writes, "Much of what is accepted into the general framework of theoretical physics, speculative biology, or pure mathematics is far removed from any immediate practical consequences....[thus] Bradley's view of science was largely restricted to a rather narrow paradigm..." (McHenry 1996: 173). But, as we have just seen, the disunity lying at the heart of the different branches of today's science runs very deep.

4.3. Bradleyian Conclusions

The point of setting out the issues in this fashion should now be clear. If the examples of disharmony within the scientific domain provide an accurate characterisation of the current situation, then science is not in a position to provide a unified basis for metaphysics. And the chances that it will do so at some future date look bleak. Why should we expect it to? We must remind ourselves that science is not the name of a single approach to nature operating with a uniform methodology. Hence if the various sciences should happen to employ taxonomies or theoretically driven conceptual schemas that make different, perhaps even conflicting, claims about the nature of reality, then we need some non-arbitrary means of adjudicating between them, should they take on metaphysical airs and graces. Those optimists who defend the possibility of a unified science believe such principled adjudication is on the cards or, more strongly, that it is inevitable. I have raised two difficult, but important, cases of phenomena, which are independent of problems in the philosophy of mind, but that hopefully expose such an attitude as sanguine. And things look downright hopeless once we include intentionality and consciousness to this list of recalcitrant phenomena.

The parallels with the conclusion reached by Bradley should be clear. To put the point directly against McHenry, it is clear that the traditional metaphysicians saw themselves as putting forward views on the underlying nature of reality. That was never in dispute. What Bradley exposed was that their reductive attempts to describe reality were unsuccessful and ultimately contradictory, in his special sense of the term. The beauty of Bradley's work is that, in the very short space of the opening chapters of *Appearance and Reality,* he develops the structure of this style of anti-reductive argument in microcosm (Mander 1994: 160).[114] For example he demonstrates that attempts to reduce relations to qualities and *vice versa*, were dismal failures. So it is with today's naturalised metaphysicians who both seek unity and yet guide their reductive enterprise by science.

On a final note, it may appear odd, or even ironic, as it did to one of my anonymous referees, that I seemingly defend Bradley's purist stance on metaphysics by appeal to what appear to be empirical difficulties in today's sciences. Indeed if the basis of my suspicions about the poverty of naturalised metaphysics were simply grounded on the fact that, contingently, there happen to be identifiable problems in the project of unifying science, I would indeed be a

defender of Bradley's conclusions, but not the spirit of his approach. However I believe the real source of these problems are ultimately conceptually based not empirically based. They emerge when we try to unify disparate conceptual schemas, which have developed to describe radically different kinds of phenomena.

But there is a possible counter-argument. P.S.Churchland has suggested that psychology and neuroscience may co-evolve in unforeseen ways and that it is therefore a high risk move to foreclose on the possibility of unification. Perhaps it is not science but our imagination that is limited (P.S.Churchland 1994: 29). But note that even if we accepted the possibility that neuroscience might evolve such that it could accommodate consciousness, there would have to be further drastic changes within chemistry and physics such that they could accommodate this modified neuroscience. If not this would do nothing to increase the likelihood of a unified science. But this kind of suggestion is not plausible in the light of the conceptual limitations discussed in chapter four. Moreover Lycan is completely right to suggest that the direction in which microphysics is developing gives no grounds for hope that it will ever posit entities with 'qualitative' features, after the fashion of Sellars' sensa (cf. Lycan 1988: 98–99, cf. also Papineau 1993a: 31).

5. A Reply to McHenry

In a recent paper McHenry has replied to some of my criticisms and in this section I make a series of replies of my own. Firstly, he argues that the contrast between what is 'concrete' and 'abstract' is bound up in an unhealthy way with traditional forms of empiricism. Yet, at least as I have presented it, the contrast is not best regarded as one between 'concrete' experience and 'abstract' judgement. Rather judgements are abstractions because they are partial as opposed to complete. Thus while Bradley may be committed to his own brand of empiricism, this is not the aspect of his thinking I have been primarily emphasising.

Secondly, McHenry concedes that, "...there is no doubt about the disarray of contemporary physics...[and] I would not dispute the negative cases to which Hutto directs our attention" (McHenry 1998: 98). But he goes on to suggest that this gives no leverage for providing a positive, absolute idealist account of reality. He writes:

> This might seem to offer new weapons to Bradley's arsenal from within science itself, but Hutto would be wrong, I think, to infer from this recognition of the limitations of science that there is another discipline that succeeds in providing the true nature of reality (McHenry 1998: 99, 100).

Indeed I would be wrong to infer this – but I never have. Thus, at least as I read Bradley, it is precisely because he is content not to make any positive offer

that his approach is attractive. As I noted in the original paper to which McHenry replied, absolute idealism would be worrying, indeed confused, if it were making positive claims about the nature of reality. We must remember that Bradley is, in an important sense, a sceptical (or better an agnostic) philosopher. Still, in light of arguments of earlier chapters, his brand of scepticism is not as unhealthy as it might first appear. Thus it is the wrong tack to attempt to press him by asking, "But can Bradley's metaphysics deliver on its promise of a satisfactory theory of ultimate reality even if the aim is to provide only a view of Reality in broad outline?" (McHenry 1998: 98).[115]

In his final summary, McHenry offers a more positive defence of naturalised metaphysics. He writes:

> ...the main point I wish to stress here is that this project of the unification of science is carried out from a comprehensive grasp of mathematics and current natural science, not by ignoring technical and detailed work (McHenry 1998: 100).

I offer a few remarks in response to this. Firstly, movements in post-positivist philosophy of science recognise that too much attention has been given to technical and mathematical aspects of science and that this has fostered a gross misunderstanding of its nature. The result, as Gasper notes, is that:

> ...the preoccupation with physics is now commonly agreed to have had a distorting effect on the philosophy of science. The tendency has been to assume certain features of physical theories, such as their tractability to mathematical axiomization, are characteristic of scientific theories in general....[this] 'received view' of scientific theories articulated by the logical empiricists of the 1920s and 1950s is beset by serious internal difficulties. In other words, the dominant model of scientific theorizing seems inadequate even as a characterization of its own domain (Gasper 1991: 545).

Indeed in the light of the discussion of chapter four, this is hardly surprising. By considering the original function of idealisation, we can see how the preoccupation with physics was encouraged by those who mistook analogue representations to be clear and true representation of reality, thus elevating their status dramatically. Science, it is now increasingly said, should not be viewed as a quest for universal axioms which would serve as laws of nature. Rather it should be viewed as a quest for significant explanations which cohere with our best theories. This is important because not all sciences are primarily concerned with universal generalisations (cf. Kitcher 1993: 125).[116] In philosophical circles recognition of this has been spurred on by the widescale rejection of the deductive-nomological view of theory reduction.

Another irony is that it is precisely by giving attention to the technical details and the mathematical implications of quantum mechanics that we discover one of the greatest reasons for thinking that science must be disunified. While McHenry is prepared to concede this, he reveals his true colours when he suggests that science remains the best guide to metaphysics because of its ability, "...to deliver results" (McHenry 1998: 101). But if this is just a remark about its practical achievements, then it fails to offer succour to the naturalised metaphysician, since accepting this is consistent with endorising the approaches of both Bradley and Dupré. If by results he means something else, then he needs to spell it out.

Lastly, McHenry's objection to my approach crucially highlights the need to distinguish between what Kitcher calls 'legend bashers' and 'science bashers'. I am one of the former not the latter. But this is not transparent from the way in which he presents my views. He says, "...in his emphasis of the negative cases, Hutto fails to note the amazing strides of modern science" (McHenry 1998: 99). My first reaction is to wonder why the cited cases are regarded as negative. In their own contexts each of the theories I discuss are examples of good science in action. It is *only* in the context of binding them together in a principled unified metaphysical framework that they are cast in a problematic or negative light. In my view, just as Davidson regards science as a suburb of our everyday language rather than a substitute for it, so I regard the various branches of sciences as equally suburban in character (cf. Davidson 1985d: 172). To surrender this metaphysical ambition is to tow the Bradleyian line.

The only other way to retain a principled unity would be to endorse some form of regulative eliminativism toward any unruly elements within theories or towards whole theories which resist incorporation into the grand whole. Indeed McHenry comes close to endorsing this position when he reminds us of the distinction between modest Quinean and ambitious, Whiteheadean versions of naturalised metaphysics. Quine's allegedly modest version of naturalism does, "...not recognise any picture of the universe beyond what the sciences provide, i.e. physicalism" (McHenry 1998: 100). But such a sparse physicalism is a non-starter, minimally, because it cannot coherently account for content or consciousness. Of course, eliminative physicalists, like Quine, will simply deny that any such attempt is necessary, but as these are non-optional features of reality, they need accounting for. I have argued this case at length with respect to content in *The Presence of Mind* and I have attempted to make the case with respect to consciousness in chapters one to three of this book.

6. Conclusion

I hope now to have successfully defended the claim that absolute idealism is not at odds with a proper characterisation of the scientific enterprise, at least as concerns issues of unity and completeness. In the next chapter, I pursue the general

question about the viability of an absolute idealist philosophy of science one step further with respect to issues concerning truth. In the course of that discussion I provide the means for giving the right version of negative response to McHenry, when he asks:

> Why the authority of science, Hutto might ask, over common sense or pure metaphysics? Is it merely arbitrary how we impose order on disorder? (McHenry 1998: 100).

CHAPTER SEVEN

Truth and the Whole Truth

> "What is already known, what is accepted as truth,
> is of immense importance; inquiry could not proceed a step
> without it. But it is held subject to use, and is at the
> mercy of the discoveries which it makes possible"
>
> – Dewey, *Experience and Nature,* 154

1. Introduction

Early analytic philosophy fostered an understanding of science which is at odds with the understanding promoted by absolute idealism. The latter claims that there is no possibility of making intelligible the relations between all the various schema, theories or sciences, such that a single discourse could ever completely describe reality. It recognises the need for plurality at the level of explanation and sense; thus it makes no attempt to explicate the metaphysical unity which it postulates. Accordingly, there is no possibility that an ideal physics could completely describe the world as it is, as I argued in the previous chapter.

In this chapter I hope to further secure its credibility by demonstrating that the absolute idealist view of truth is largely consistent with our best understanding of truth. Specifically I argue that its understanding of truth provides a sound basis for a plausible and sophisticated version of scientific realism. In making this case I begin by analysing the role truth is supposed to play in our understanding of the scientific enterprise. I have tried to make a case for absolute idealism with respect to the issue of unity.

2. The Discursive Picture of Reality

In the previous chapter I focused on the question of completeness as it relates to legendary science's stated aim to provide 'a complete, true story of the world'. In

this chapter I turn my attention to the issue of truth and the idea that the nature of reality can be captured both fully and accurately by some ultimate discourse.

Although analytic philosophy of science has changed greatly over the years, what has remained constant, indeed distinctive, is its continued implicit acceptance of the essential tenets of the early analytic philosophers. For, in common with those philosophers, supporters of Legend assume that the world stands over and above our ways of describing it and that it divides into pre-packaged kinds. Hence if we could only get a clear view of things, either observationally or theoretically, from our side of the fence, we could know the whole truth about reality. For physicalists, a mature physics attractively holds the promise of a systematic means of obtaining such an objective, God's-Eye View from Nowhere. They are fond of metaphors which suggest that a future physics will carve nature at the joints and take inventory of the furniture of the universe. Putnam captures the character of this popular attitude in the following remark:

> We cannot really go back to the Middle Ages or Plato's time. If science does not tell us what is 'really there' in the metaphysical sense, then neither does anything else (Putnam 1990: 90).[117]

Of course, unlike some of their predecessors, physicalists hope to glean their ontology from the findings of science, as opposed to analysing language *per se*. Nevertheless once we see that an ideal physics would be the metaphysical end product of legendary science, the connection with early analytical philosophy becomes clear. At base, support for physicalism requires acceptance of what we might call a discursive picture of reality; one which emphasises the intellectual form of representation as having the potential to reveal completely that which is represented. This way of understanding science is, "...methodologically like reading and interpreting a book, the book of nature" (Koso 1992: 5). As David Bohm has convincingly aruged, the modern claim that reality is, at base, atomistic and mechanistic, is encouraged by the idea that thought represents a static reality populated with objects, events, properties and relations. Reflecting the title of Armstrong's recent book, this discursively characterisable world would be essentially a world of states of affairs. Or, to use the language of Wittgenstein's *Tractatus*, reality is nothing more than the facts. And facts are tailor-made to be pictured in language (Wittgenstein 1922: 1.1). The familiar idea is that reality can be, at least in principle, adequately represented by thought and the essence of thought can be, at least in principle, revealed *via* scrutinising the underlying logical form of language.

The discursive vision of reality can be more or less sophisticated, depending on one's favoured account of semantics and ontology. But Bohm is right to say its inspirational source stems from the subject-verb-object structure of language, which is supposed to be shared by thought. For it is this which encourages us to:

> ...divide things into separate entities, such entities being conceived of as essentially fixed and static in their nature. When this view is carried to its limit, one arrives at what is often called 'the prevailing scientific world view', in which everything is regarded as ultimately constituted out of a set of basic particles of fixed nature (Bohm: 1981 29).[118]

This astute remark reveals how little the metaphysics of physicalism has strayed from its logical atomist roots. Even in the switch from positivism to physicalism, a crucial aspect of analytic philosophy of science has remained unaltered. It is the presumption that metaphysics has a logico-linguistic basis. This has remained a constant fixture of the analytical approach irrespective of whether it is working with an epistemic or an ontological brief. In the mould of their predecessors, analytic philosophers must endorse some version of this common credo. Specifically, that the essence of language is that of truth-conditional representation.

2.1. Correspondence Theories of Truth

In this light it is hardly surprising that lying at the very heart of traditional scientific realism is a commitment to some form of correspondence theory of truth. When I speak of traditional scientific realism, I am speaking about the kind of realism that is concerned with theories as opposed to entities. Hacking marks this distinction well by reminding us that, "The question about theories is whether they are true, or are true-or-false, or are candidates for truth, or aim at the truth. The question about entities is whether they exist" (Hacking 1983: 27). This is an important distinction to which I shall return in section 4.2. But as the issue is currently about intellectually inspired realism alone, our concern is with theoretical realism. According to advocates of this version of scientific realism, "Science is thought of as offering 'hard', objective' truth: truth as correspondence to reality, the only sort of truth worthy of the name" (Rorty 1991a: 35, 1998: 19-20, cf. Putnam 1984: 140). Even Kitcher, who offers a very sophisticated revision of Legend, retains the idea that the goal of science is cognitive progress which is, at base, an epistemic quest for truth (Kitcher 1993: 93).

But the idea of correspondence can be fleshed out in a variety of ways, some more modest than others. This generates a variety of different brands of theoretical realism (cf. Laudan 1984: 219). Only if we accept its strongest form need we be committed to the discursive picture of reality, according to which a final truth is what our best science will one day reveal. On this view there will be a correspondence between reality as it is and our description of it in terms of our best final theory. If this were the right way to understand the philosophy of science, then we would have good reason to prefer physicalism over absolute idealism, despite the former's poor track record in the philosophy of mind and its

problems in dealing rationally with the special sciences. But, this view of realism in science is not plausible, resting as it does on an unworkable notion of correspondence.

2.1.1. The Very Idea of Total Correspondence

Kuhn famously challenged the claim that science is a quest for truth by criticising the very idea that theories might correspond to a reality beyond. He wrote:

> One often hears that successive theories grow ever closer to, or approximate more and more closely to, the truth. Apparently generalizations like that refer not to the puzzle-solutions and the concrete predictions derived from a theory but rather to its ontology, to the match, that is between the entities with which the theory populates nature and what is 'really there'....[but] there is, I think, no theory-independent way to reconstruct phrases like 'really there'; the notion of a match between the ontology of a theory and its 'real' counterpart in nature now seems to me illusive in principle (Kuhn 1970: 206).

It is the practice of some followers of Kuhn to suggest that, with respect to the question of truth, there is, "...no privilege for current science" (Leplin 1984: 203). Indeed not only can progress be questioned on such grounds, given the incommensurability that putatively exists between the conceptual schemes in operation during different paradigms, it has been argued that certain key insights are typically lost during scientific revolutions. However, it is not my intention to motivate scepticism about the capacity of science to take us progressively closer to the truth based on a pessimistic reading of the inductive evidence from the history of science. I think Kitcher makes a very effective response to the alleged phenomena of 'Kuhn Loss' when he claims that often what we lose in such cases are important, but vague, insights that only come to be seen as valuable once they have been re-formulated and put to work in later theorising (Kitcher 1993: 116–118, 131–133, McMullin 1984: 17, Leplin 1984: 193–194). Still it is possible to attack the strong correspondence claim on other grounds.

The real problem is that the very idea of correspondence, at work in the theories of truth which Bradley calls copy theories, is ill-formed. For it must be asked: To what is a true sentence, or theory, supposed to correspond? The standard realist reply is that they correspond to the facts of the world. According to the strong or immodest versions, this claim entails a commitment to an ontological domain of independent isolable truth-making facts. However it is important to note that supporters of this view need not be saddled with the implausible claim that there is a separate fact for each statement or proposition which makes it true or false. For example, the fact that I have five fingers on my right hand makes this claim true.

Yet the same fact also makes an infinite number of other claims about the number of fingers on my right hand false. For example, it falsifies the claims that I have six, seven or more fingers on my right hand. In noting this, advocates of the idea that facts make statements true avoid postulating an infinite number of facts and indeed they avoid such strange beasts as negative facts too (cf. Armstrong 1997: 119).

But these are technicalities. Frege, Lewis and Davidson have raised a much deeper concern with the truth-making view. Davidson writes:

> The real objection to correspondence theories....is that there is nothing interesting or instructive to which true sentences might correspond. The point was made some time ago by C.I. Lewis; he challenged the correspondence theorist to *locate* the fact or part of reality, or the world, to which a true sentence corresponded. One can locate individual objects, if the sentence happens to name or describe them, but *even such location makes sense only relative to a frame of reference*, and so the *frame of reference must be included in whatever it is to which a true sentence corresponds.* Following out this line of thought led Lewis to conclude that *if true sentences correspond to anything at all, it must be the universe as a whole*; thus, all true sentences correspond to the same thing. Frege, as we know, reached the same conclusion through a somewhat similar course of reasoning (Davidson 1990b: 303, emphases mine, cf. also Davidson 1996a: 266–267).

Kirkham suggests that Davidson's objection really amounts to the complaint that, "...we cannot individuate and identify any particular fact save by using the very same words that we use to individuate and identify its corresponding sentence" (Kirkham 1997: 138). But he responds to this by suggesting that there are certain characteristics of facts, such as their capacity to enter into causal relations, that give us positive independent reasons to postulate their existence. Yet this misses the main point of Davidson's objection. It does not deny the independence of the world or the usefulness of postulating certain types of entities for particular explanatory purposes. Davidson's claim is that, "...facts or states of affairs have never been shown to play an useful role in *semantics*..." (Davidson 1996a: 266, emphasis mine, cf. also Papineau 1987: 30). Thus even if we recognise that they play causal roles, it does not follow that the world is really fragmented after the fashion of our causal-explanatory discourses. Facts are abstractions precisely because no explanation is possible without a frame of reference.[119] In judging and speaking, we necessarily have to adopt a relative take on things. So, even though we sometimes postulate and speak of facts in the way Kirkham suggests, this offers no support to the claim that they are needed as interesting truth-making entities. Rorty identifies the crux of the issue when he notes that:

> Davidson's reasons for having no truck with the idea of 'truth makers' is his hunch that only completely artificial objects called 'facts' – what Strawson sneeringly called 'sentence shaped objects' – can meet [the metaphysical realist's] needs. The problem is not with funny, Platonic, 'hyper-objectivized' facts, but with *any* sentence-shaped nonsentence. *Insofar as they are nonconeptualized, they are not isolable* for input. But insofar as they are conceptualized, they have been tailored for the needs of a particular input-output function, a particular convention of representation (Rorty 1998a: 36, emphasis mine).

We must separate two charges which are embodied in this quotation. The first is logical, the second is speculative. The logical point, which is the essence of the Frege-Lewis-Davidson complaint, concerns the fact that any sensible talk of reality is always intensional. This inescapable, but fundamental, point is brought out vividly by Frege's discussion of mundane mathematical equivalances. For he was always careful to stress the difference between the, "...sign and thing signified" (Frege 1891: 22). If we say, $8 + 8$ and 4^2, then what we are speaking about, on Frege's view, is the number 16. The signs $8 + 8$, 4^2 and XVI all refer to *that* number and so, indeed, does the sign 16 itself. The number in-itself cannot be characterised or spoken of independently of some given sign. Thus when in (1) below we place 16 on the right-hand side of the equal sign, we are merely using one of several possible signs to act as place holder for the thing signified.

(1) $4^2 = 16$

In the linguistic domain the same holds for names and things named. And the point applies more widely. Since Frege regarded propositions as names for The True or The False, he regarded all sentences as directed at one or other of these objects (cf. Dummett 1991: 81). Yet one doesn't have to believe that propositions are a species of name to recognise that if we try to give an explication of 'is true', we will arrive at the same conclusion with respect to the extension of 'The True'. In the end, just as Frege anticipated, every true statement corresponds to all that is true. Unsurprisingly then, the results are unexciting if we ask: "What is the extension of the predicate 'is true'? Trivially, it is the set of all true things, but this, being circular is not a very informative answer..." (Kirkham 1997: 4).

Here we reach an important cross-roads. If our ambition is to determine what makes a given statement true or false, two different answers present themselves. The quietist answer, *à la* Davidson, is that the fact that the world is thus and so makes it so. This stands opposed to the strong correspondence theorist's answer that some specifiable fact makes it so. We can see the difference in these approaches if we consider two formulations of what Wright calls the correspondence platitude. He writes:

Let it be indeed a platitude that:

'P' is true if and only if 'P' corresponds to the facts.

Is anything lost by paraphrasing this as

(CP) 'P' is true if and only if things are as 'P' says they are? (Wright 1992: 25).

He contrast this innocent reading with a seemingly stronger formulation advanced by Horwich:

(CP+) 'P' is true *because* P

An important difference between these two explications of the correspondence platitude, which we shall explore further, is that on some readings the second treats facts as playing a causal-explanatory role with respect to truth, whereas according to the first reading the relation between sentences and facts is purely stipulative and normative. Hence if we employ CP+ to explicate the idea of correspondence, we are owed an analysis of both the correspondence relation and a more interesting account of the nature of facts (cf. Wright 1992: 82–85). I will discuss the prospects of explicating the truth relation without appeal to our normative, interpretative practices in section 3. But for the moment I want to consider the likelihood of our getting a full-dress metaphysical account which describes the nature of pre-carved reality, in its nakedness.

Those correspondence theorists who rely on Tarski's recursive definition of truth, which makes appeal to the notion of satisfaction, may think there is no problem here precisely because it is a critical feature of Tarski's account that it appeals to the idea that sequences of objects determine truth (cf. Kirkham 1997: 150–158). However there are two things to note. Firstly, Tarski's definition was only ever designed for artificial languages, not natural ones. But the language of science is undoubtedly a sub-species of natural language (cf. Van Fraassen 1981: 4). Thus for Tarski to be of use to the scientific realist, the theory would need to undergo a Davidson-style inversion so it could apply to the language of science (cf. Hutto 1999c: ch. 5, Kirkham 1997: 161, Leplin 1984: 194, Papineau 1987: 28–31). But, even if we allow such a manoeuvre, this does not retrieve the situation for correspondence theorists who seeks to defend CP+. For, as Davidson points out:

> Tarski does define truth on the basis of the concept of satisfaction, which relates expressions to objects, but the sequences that satisfy sentences are nothing like the 'facts' or 'states of affairs' of correspondence theorists since if one of Tarski's sequences satisfies a closed sentence, thus making it true, then that same sequence also satisfies every other true sentence, and thus also makes it true, and if any sequence satisfies a closed sentence, every sequence does (Davidson 1996a: 268, Kirkham 1997: 153).

Metaphysically speaking, what makes our sentences true (or partly so) is everything that *is*, as opposed to that which *is not*. This is the One Great Fact problem which confronts ambitious versions of the correspondence theory of truth. For once we see that there could only be one such fact, it puts the idea of a pre-divided world, quietly awaiting its linguistic partner, to the sword. Facts have an artificial or manufactured character – however useful they are. This conclusion ties in with a speculative version of Rorty's objection. For given that language is a late development in our cognitive lives – one specific to human beings – it would be incredible if it just so happened that independent reality, which was patiently awaiting this development, was in-itself sentence-like (cf. Clark 1997: 25).

2.1.2. Naturalised Correspondence Theories

When appraising correspondence theories, another pertinent worry is whether or not a naturalised epistemology is on the cards. For this is an obvious requirement, if one wishes to use the correspondence theory as a basis for the strongest form of exclusive scientific realism. As Quine tells us, "...we seek no firmer basis for science than science itself; so we are free to use the very fruits of science in investigating its roots" (Quine 1995: 16). But such a view has a consequence. For, barring eliminativism about meaning and truth, we must be able to give an account of the semantic properties of scientific language, which underpin its propositions and theories, using only the resources of science. Bearing this in mind, the ultimate credibility of realism about scientific theories, in the strong form we are considering, rests on uncovering a naturalistic version of the correspondence theory of truth. This, in turn, minimally requires a naturalistic theory of reference. What are the prospects of obtaining this?

Traditional scientific realists standardly adopt a naive picture about the nature of reference; one in which, by some means or other, the symbols which putatively occupy our 'belief boxes' come to stand for specific worldly kinds. From these humble beginnings they hope to eventually explain reference and truth, as they appear in full-blown scientific language and theorising. Consider that:

> Legend was often elaborated as though a simple view of mental activity was presupposed. Think of the mind as a box whose contents are declarative

statements or propositions....In response to new information....the contents of the boxes are modified and the housekeeping apparatus, the embodiment of the scientist's logical and methodological proclivities, goes to work to effect further reorganisation, sometimes leading to the acceptance of large theoretical claims. One task of the philosophy of science, traditionally conceived, is to understand the functioning of this housekeeping machinery (Kitcher 1993: 61).

Despite recognising the importance of the social and practical dimensions of scientific practice, even Kitcher, who rejects much of Legend, continues to endorse a version of this picture of cognition. And, like many others, he hopes that artificial intelligence and cognitive science will vindicate it in its modern guise, at least in part. Minimally he expects that cognitive science will provide a naturalistic account of the referential relation which in turn could explain truth (cf. Kitcher 1993: 79–80, 131, 133, footnote five, 390 cf. also Boyd 1991: 209–210, 1984: 62, Cummins 1991: 1–2, Laudan 1984: 221). However I think such hope is forlorn. For when one gives any serious attention to the dynamics of referring and making judgements, scientific or otherwise, this simple picture must be rejected. In *The Presence of Mind,* I provided a sustained argument against classical cognitivist attempts to vindicate a *lingua mentis*. I argued that neither causal nor informational theories of content provide an adequate account of the referential relation, because it is essentially wrong-headed to seek after some special worldly relation between signs and signifiers. In order to understand reference aright, we must not focus attention on the referential relation holding between signs and signifiers, but rather on the use of signs (cf. Hutto 1999c: ch. 2).

As Millikan's biosemantic theory explicitly recognises this, it offers the best hope of a naturalised semantics. Nevertheless, although her account of triangulation is designed to show just this, biological forms of triangulation only admit of nonconceptual content. Hence, in a different way, biosemantics is also inadequate as a means of understanding relations of truth and reference proper (cf. Hutto 1999c: ch. 3). For these reasons naturalised theories of content fall well short of providing a theory of truth that could in any way account for scientific theorising. The best the naturalist can provide is an account of directed, intentional responding which acts as one platform for the development of the socially constituted activity of making judgements. Consequently we cannot account for scientific theorising, as traditionally conceived, by appeal to the deliverances of cognitive science. Acknowledging this has profound negative consequences for the traditional forms of exclusive scientific realism, as advanced under the auspices of analytic philosophy. Likewise it has negative consequences for its brainchild, physicalism.

Furthermore it is interesting that, in endorsing biological naturalism, we are driven to conclude that cognition is purpose-built (cf. Van Fraassen 1980: 40, cf.

also Kitcher 1993: 59). But this casts doubt on the idea that our best final theory, even if we could generate one, would adequately describe reality as it truly is. Yet why should the fact that our cognitive responses are originally purpose-built be an impassable barrier to the production of a true description of reality? What are the grounds for this *a priori* conclusion? These questions are the basis of Dennett's challenges to the validity of McGinn's claim that we are cognitively closed. He points out that:

> Monkeys, for instance, can't grasp the concept of an electron, McGinn reminds us, but I think we should be unimpressed by the example, for not only can the monkey not understand the answers about electrons, it can't understand the questions. The monkey isn't baffled, not even a little bit....so until Chomsky and Fodor and McGinn provide us with clear cases of animals (or people) who can be baffled by questions whose *true* answers could not unbaffle them, they have given us no evidence of the reality or even likelihood of 'cognitive closure' in human beings (Dennett 1995: 383, emphasis mine).

Note that Dennett's argument presupposes that there is a truth about electrons which is simply not available to the monkey. But, if I am right, there is no such parallel when it comes to providing a final theory of reality. Consider again the claim that we cannot make the psychophysical relation intelligible. There is no intelligible, true theory to be had. Thus there is no question of our getting to it if only our concepts should develop in the right kind of way. Of course, Dennett's example does raise a problem for McGinn precisely because he allows that there is such a theory. Recall that, in order to retain allegiance to physicalism, he postulates that there is a theory P which explains the psychophysical link; only he maintains that it is forever beyond our ken.

Even so, Dennett does not think that there are any evolutionary considerations which would lead us to endorse cognitive closure, as construed in my way rather than McGinn's. I think there are, but they show themselves indirectly. Consider that evolution is not concerned with truth and that the practical knowledge it frugally confers is provided on a 'need-to-know' basis only. These are points upon which Dennett and I agree. Our sensory systems are not concerned with providing an objective picture of the world, only an useful one. Add to this the fact that conceptual development is not itself a Darwinian development – even if its ontogenesis is in part explained by the fact that we have certain capacities that it provides (cf. Hutto 1999c: ch. 3–5). We now have enough to see that the real question, with respect to cognitive closure, is not primarily whether or not there are limits to what evolution *per se* can throw up. Rather, it is: Are there limits to what intellectual endeavour can throw up, given its evolutionary origins? To this I think the answer is that there are such limits because our concepts develop from

and depend upon our limited, purpose-built capacity to respond to certain aspects of reality. Hence although we greatly expand upon these meagre beginnings, we still cannot expect our concepts to go in all directions at once. If they did, they would need to be so general as to be of no use to us. They would need to become, *per impossible*, interest-free. This is why attempts to apply certain concepts, which are tailored for one domain, in another incompatible domain is a major source of philosophical confusion. For example, I hope to have already established that talk about three-dimensional objects is a misleading model for talk about conscious experiences in chapter four.[120] If these speculations about the evolutionary origins of the capacities which underwrite conceptual development are correct, it is clear that this is no accident.

3. Modest Realism and Correspondence

Interestingly several scientific realists have been at pains to dissociate themselves from the idea that realism about theories entails commitment to a strong version of the correspondence theory of truth. For example, McMullin claims, "...scientific realism is not immediately undermined by the rejection of metaphysical realism..." (McMullin 1984: 25). Indeed it is common that today's scientific realists only advocate less ambitious versions of realism about theories.

Kitcher provides a good example of a philosopher of science who takes this softer line. He characterises the idea of conceptual progress in science as being concerned, in the first instance, with significant questions as opposed to truth (Kitcher 1993: 93–96, 130). What is interesting about his approach is that the epistemic ordering is just the opposite of that proposed by the traditional metaphysical realist. What we get is a kind of retrospective justification of our truth claims. First practices change and ideas develop and agreement about how things stand with the world emerges. As we become slowly convinced of the state of things, new standards and criteria of justification are established. Thus at each stage, when the verdict of the truth and falsity is passed, we accept that it is provisional at best. Nevertheless we must keep issues of truth and justification separate and we must also be clear about the order of their relation. The modest, as opposed to the ambitious, realist sees truth as following, not leading our justificatory practices. But here I want to emphasise that modest forms of realism of this kind are not at odds with absolute idealism. To securely establish this, I want to make a few comparisons. First I want to highlight the underlying similarities between this kind of modest scientific realism and Davidson's account. Then I want to highlight the similarity between Davidson's account and that of Bradley.

First let us consider Davidson's views. For he too has tried to make clear the modesty of his realism in a number of places (cf. Davidson, 1986a, 1986b,

1990b). As Ramberg says he, "...proclaims himself a realist because the only way to construct a semantic theory of truth, to give the truth conditions of sentences, is to postulate a relation between language and world. But this relation *does not serve justificatory purposes of any kind*" (Ramberg 1989: 47). Davidson's modesty on this score is linked to his view that the conditions for content must be understood by appeal to radical interpretation. He has argued that we learn to interpret others in a social environment on the basis of what the world provides us. On his account, truth and our notion of an objective world develop in the process of learning from and interpreting the utterances of others. We might say truth, and the concept of truth, emerge when communicators establish public criteria for the assessment of reports made by others. Since truth emerges in this way, it must be regarded as a basic concept. For Davidson there is such a thing as truth but we cannot give a further explication of it. In this context he cautions against attempting to provide any grander theory of truth. He writes:

> We should not say that truth is correspondence, coherence, warranted assertability, ideally justified assertability, what is accepted in the conversation of the right people, what science will end up maintaining, what explains convergence on single theories in science, or the success of our ordinary beliefs. To the extent that realism and anti-realism depend on one or another of these views of truth we should refuse to endorse either (Davidson 1990b: 309).

> Truth is as clear and as basic a concept we have. Tarski has given us an idea how to *apply* the general concept (or try to apply it) to particular languages on the assumption that we already understand it; but of course he didn't show how to define it in general (he proved, rather, that this couldn't be done). Any further attempt to explain, define, analyze or explicate the concept will be empty or wrong: correspondence theories, coherence theories, pragmatist theories, theories that identify truth with warranted assertability (perhaps under 'ideal' or 'optimum' conditions), theories that ask truth to explain the success of science or serve as the ultimate outcome of science or the conversations of some elite, all such theories either add nothing to our understanding of truth or have obvious counter-examples (Davidson 1990a: 135-136).

On these grounds Rorty prefers to read Davidson as a pragmatist and quietist (Rorty 1991a: 126). Indeed he advertises his recent collection of essays on truth and progress as, "...footnotes to Davidson's claim" (cf. Rorty 1998a: 11). Yet Davidson has steadfastly resisted the honorific accolade of pragmatist. Why? He is wisely wary of this title because he is prepared to allow for an appearance-reality divide within experience and because he does not hold that truth is equivalent to

warranted assertability of any kind. Thus he separates the question of the nature of truth from questions about the nature of justification. To understand his views aright, two points need to be kept separate. Davidson, like the pragmatists, holds that reality is not a mere social construction; but he also denies that questions of truth and justification are one and the same. For to think that they are is tantamount to a denial of the appearance-reality divide. Thus, as Dewey puts it:

> Experience [to some thinkers] is not only something extraneous which is occasionally super-imposed upon nature, but it forms a veil or screen which shuts us off from nature, unless in some way it can be 'transcended' (Dewey 1958: 1a).

It is this kind of Deweyian remark which Rorty sees as providing the real motivation for pragmatism. It is only by completely abandoning this idea of experience that one can give, "...up the appearance-reality distinction" (Rorty 1998a: 5). But Davidson refuses to abandon this distinction. Rather he sees it as occurring, for want of a better expression, 'within the world'.

3.1. The Mind-Independence of the World

To understand how the appearance-reality divide occurs within the world, we must understand the nature of contextual interpretation. This is accomplished by imagining the position of the radical interpreter who has nothing but his observations and principles of charity to go on when interpreting others. As Davidson stresses, in such a situation:

> ...what can be observed, of course, is speech behaviour in relation to the environment, and from this certain attitudes toward sentences can be fairly directly inferred, just as preferences can be inferred from choices....From such acts it is possible to infer that the speaker is *caused by* certain kinds of events to hold a sentence true (Davidson 1990b: 318, emphasis mine).[121]

In light of these remarks, it is worth digressing to make clear the role causality plays in the process of interpreting speech acts. This is important because some philosophers may be mislead into thinking that invoking it at this juncture is at odds with non-reductionism. For instance, Evnine thinks that such causal talk is at odds with his, "...interpretative hermeneutic project [which] goes with an idealist theory of content" (Evnine 1991: 175).[122] For to engage in such talk is surely to open up a necessary gap between what causes my thought and what my thought is about – a split between what is given and how I interpret it; a split between appearance and reality. But if the worry is that Davidson's approach to interpretation re-vitalises the scheme-content distinction, it is unwarranted. It is

certainly true that in his talk of causation and correspondence, he wants to maintain the idea that there is a mind-independent world which we confront. And Evnine is right to think that this opens up a gap between what causes a speaker's utterances and what the speaker means by those utterances. Nevertheless Davidson holds that, viewed as a divide between a lone subject and the world, such a gap is unintelligible. What is required in order to make sense of this gap is an inter-subjective standard upon which the notion of an objective world, independent of ourselves, is generated. The subject-object split (or scheme-content distinction) only emerges when we have access to an inter-subjective standard, a social world.[123] It is only in such a space that we can employ the normative criteria needed for treating utterances as truth-bearing or not (cf. Hutto 1999c: ch. 5).

Although Davidson speaks of causality, objectivity and correspondence, it is vital to notice that the role these concepts play in his work is nothing like that which they play in traditional correspondence theories of truth and reference which he considers *absurd* (Davidson 1986b: 307).[124] The causes, of which he speaks in the earlier quotation, are already non-reductively incorporated into the social context of interpretation. But this is not to say they are constructed by society. I take this also to be akin to Heidegger's claim that, "...the world is disclosed essentially along with the Being of Dasein" (Heidegger 1962: §43, §203). The choice of words is important here. Notice Heidegger says the world is disclosed, not simply constructed or created. Likewise his student, Gadamer explicitly says that, "The agreement about things that takes place in language means neither a priority of things nor a priority of the human mind" (Gadamer 1960: 78). This is what frees Davidson from the mind-dependence feature inherent in certain forms of idealism. For he too thinks it would be a mistake to regard reality as dependent upon us, even though ours are the only standards for interpreting it (cf. Putnam 1987: 12).[125]

To put the point in the present context, we must realise that we can only make sense of the potential gap between the subject and the world as one found within the world – within our common experience and understanding of things.[126] It is only visible to us within the world. As the notions of objective truth and error arise only in the context of interpretation and against the background of an inter-subjective norm, subjectivity and objectivity emerge, as it were, simultaneously. Davidson's way of expressing this is to say, "...the foundations of knowledge must be subjective and objective at once" (Davidson 1986b: 327). We might make use of Heidegger's term here and say they are *equiprimordial* (Heidegger 1962: §43, §200). The point is that we are indeed always speaking of and interacting with mind-independent things – a world neither composed by us nor obedient to our concerns. But, at the same time, we can never make the impossible step outside our own form of life, as there is no such place to step. Unless we imagine

ourselves in the position of a Philosophical God, there is no sense in our sponsoring either transcendental realism or idealism.

Nevertheless it might be thought that Davidson's position is more idealist than realist because he endorses the claims that; (i) our language is the best guide to metaphysics, (ii) our way of seeing things is the *only* way of seeing things and (iii) the basis of language cannot itself be explained since it is a transcendental condition of experience (broadly construed).[127] McDowell has charged that these claims are mixed up with an endorsement of a coherentist view of justification. He claims that Davidson's, "Coherentist rhetoric suggests images of confinement within the sphere of thinking, as opposed to being in touch with something outside it" (McDowell 1994: 15, cf. also Nagel 1986: 94–97, Papineau 1987: x). Read in this way, it appears as if we cannot break out of the circle of our beliefs. And, as McDowell claims, "Davidson does nothing to discourage us from taking his coherentist rhetoric in terms of confinement imagery" (McDowell 1994: 16).

The big question, however, is whether or not this makes his position idealist. For, as we have seen, Davidson is a self-styled realist. How can that be?[128] His close readers will find the idea that he sponsors idealism difficult to understand, let alone sustain. Although McDowell realises that Davidson wishes to avoid a 'blind' coherentism, he claims that his means of achieving this is inadequate. Yet this is because, as he sees it, Davidson's only possible move is to appeal to the interpretative principle of coherence which guarantees that, if one is to be regarded as cogniser at all, one must get things mostly right. This, he thinks, is the principle which acts to, "...make the confinement imagery unthreatening by reassuring us that those beliefs are mostly true" (McDowell 1994: 17). But he goes on to point out that it is inadequate since it, "...does not calm the fear that our picture leaves our thinking possibly out of touch with the world outside us" (McDowell 1994: 17).

But it is wrong to think that Davidson has only one principle in his arsenal. In fact, it is his principle of correspondence, in concert with his principle of coherence, that underpins his modest realism. This is made obvious in his later writings (Davidson 1991a, 1991b, 1992, 1996b, cf. also Papineau 1987: 36–38). It is this second principle that ties us to the world. As I have argued in chapter one, common experience of a common world is a necessary basis for triangulation and interpretation. But isn't this a major concession to McDowell's resuscitated empiricism? It may appear as if I am embracing McDowell's claim that we are able to discern a 'second nature in the word'. For he suggests that, "...our sensibility yields states and occurrences with conceptual content. That enables us to see an experiencing subject as open to the facts" (McDowell 1994: 72, cf. also 14). But while I think experience cannot be eschewed when it comes to understanding our relation to things, I agree with Davidson, *contra* McDowell, that it serves no justificatory role. This is precisely because it is nonconceptual.

But just as it is important to separate issues concerning experience from those concerning justification, it is equally important to separate our understanding of justification from our understanding of truth. That is to say, to adopt a coherentist epistemology with respect to justification does not demand adoption of coherentist theory of truth. It is this second conflation which is at the heart of standard misreadings of Davidson. This may not be apparent as the two notions can seem to be unified in certain respects. Yet it is an unhealthy tendency of the traditionalist to link an unsophisticated theory of truth with an equally unsophisticated account of justification.

To return to McDowell's charge that Davidson's rhetoric encourages the idea of confinement, it is useful to consider Maker's way of setting out the story of philosophical development with respect to the issue of transcendental subjectivity. It rather nicely reveals how we might do away with the inside-outside metaphor (cf. Maker 1991: 348–352). The tale begins with a postulated dichotomy between the realms of the subjective and the objective – that to which we have access to and that to which we hope our ideas correspond. But, as he points out, the age-old epistemic problem, generated by this picture, is that nothing we can have subjective access to could ever count as evidence for what is objective. For anything we have access to is, by definition, only ever subjective and hence can provide no evidence of an objective standard. This is how the very idea of a thoroughly mind-independent objective realm breeds an irrefutable scepticism.

One move is to abandon the idea that there could be any interesting separation between our way of seeing things and the way they are. In this way it might be thought the situation could be rescued by getting, "...us to rethink the idea that subjectivity can be properly understood as something we are trapped within, forever cut off from an objectivity lying beyond" (Maker 1991: 349). This is the understanding of experience to which Dewey objects. We are bidden to reject the very idea of a subject-object split as a myth, if it is conceived as being outside of, or prior to, experience. The subjective and objective need no bridge to link them since they are not radically separated in the way the original picture suggests. This move is available if one denies the possibility of radically different conceptual schemes and insists that employing our concepts, or language, is a pre-condition for encountering or understanding the world.

What is interesting is how Maker describes this stage. He writes, "Transcendental thinkers ask us to *interiorize objectivity*" (Maker 1991: 349, emphasis mine). And, of course, that is the natural way to express the situation if one tells a story in which transcendentalism is a response to the idea of a radical and unbridgeable subject-object split. Given that starting point, it looks as if transcendental arguments are effectively forcing the objective world into the subjective realm.[129] But, of course, if one actually draws this picture, it is evident that such a description is inappropriately biased. Having dragged the world fully into the subjective realm, we are left with nothing that can any longer be called

subjective or objective in the philosophically dramatic sense presupposed by the original picture.[130] As Maker makes clear, once the subjective-objective split collapses, we completely lose the sense that we are somehow trapped within our view of things (Maker 1991: 356). It is, "...a radical or thoroughgoing subjectivism – a subjectivism without limits – that leads to a satisfactory objectivism" (Maker 1991: 356).[131] That is to say, once the subjective and the objective merge on equal footing, it is clear that there is no sense to be had from the old inside-outside metaphor of our relation to reality.

It is useful to compare Wittgenstein's later position with that of Davidson's, for on this matter they agree substantially. Both regard contact with the world and its objects as crucial to the mastery of language.[132] However Wittgenstein's account of language mastery is not intellectualist in the way Davidson's often appears to be. He says such things as:

> Giving grounds, however, justifying the evidence, comes to an end; – but the end is not certain propositions' striking immediately as true, i.e. it is not a kind of seeing on our part; *it is our acting, which lies at the bottom of the language-game* (Wittgenstein 1969: §205, emphasis mine).

> I want to regard man here as an animal; as a primitive being to which one grants instinct but not ratiocination. As a creature in a primitive state. Any logic good enough for a primitive means of communication needs no apology from us. Language did not emerge from some kind of ratiocination (Wittgenstein 1969: §475).

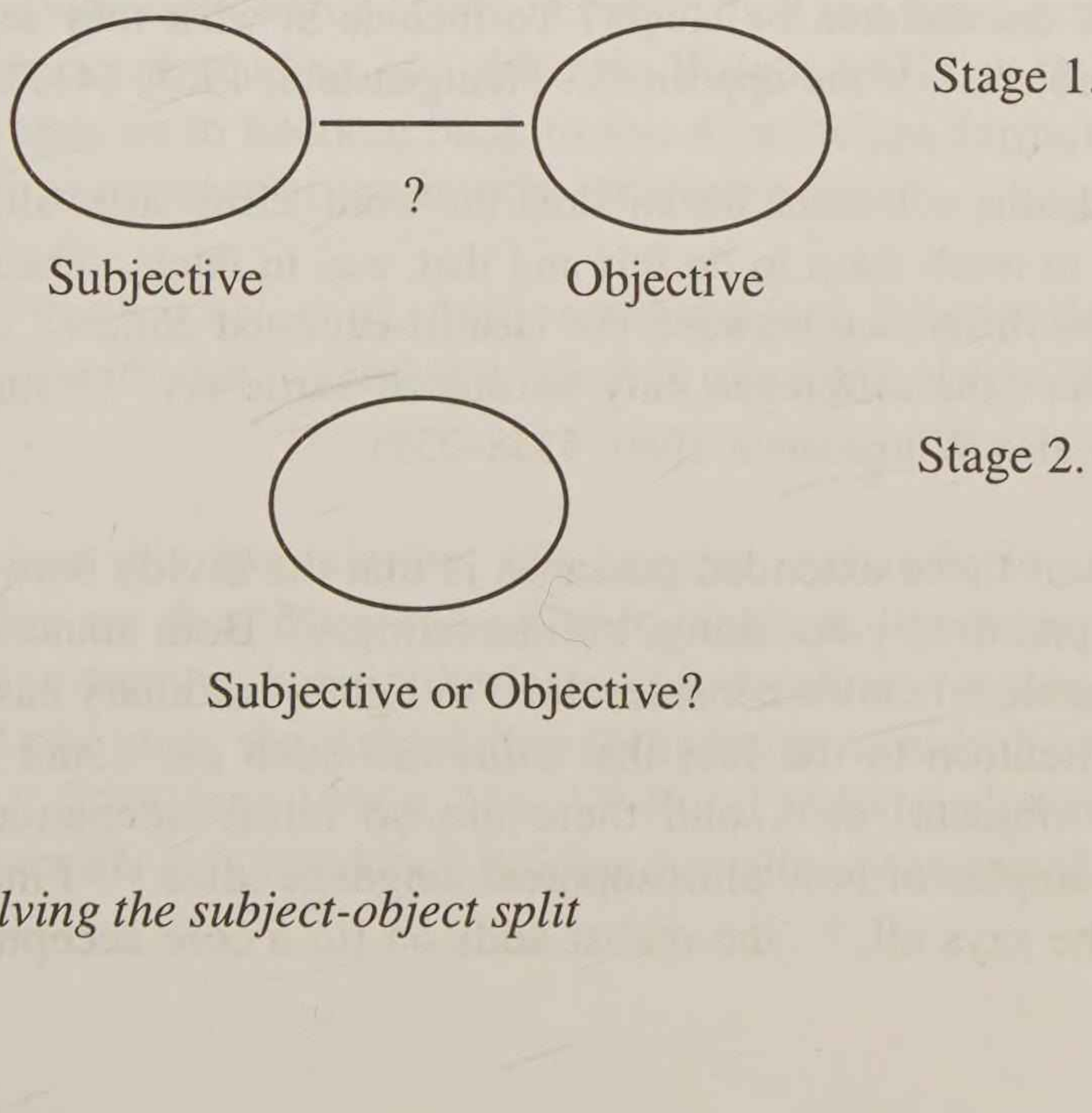


Figure 12. *Dissolving the subject-object split*

Whereas Davidson regards coming to recognise the conditions, under which another's utterance will be true, as all-important to interpretation, it is clear that Wittgenstein wished to consign any and all attachment to truth-conditional accounts of language, traditional or otherwise, to his past.[133] Consider this remark:

> Children do not learn that books exist, that armchairs exist, etc. etc., -- they learn to fetch books, sit in armchairs, etc., etc. Later questions about the existence of things do of course arise. "Is there such a thing as a unicorn?" and so on. But such a question is possible only because as a rule no corresponding question presents itself... (Wittgenstein 1969: §476).

In one way this suggests that Davidson and Wittgenstein have different attitudes about how it is that we are related to the world in the basic cases; but I think Davidson's approach encompasses elements of both Wittgenstein's earlier and later selves in this regard. Nevertheless it is quite clear that, with respect to questions about realism and idealism, they stand together. They both steer clear of the positions occupied by philosophers of these camps.

In a remark from *The Blue Book* he openly tells us that, "...the common-sense man....is as far from realism as from idealism..." (Wittgenstein 1958: 48).[134] And in *Zettel* he remarks:

> One man is a convinced realist, another a convinced idealist and teaches his children accordingly. In such an important matter as the existence or non-existence of the external world they don't want to teach their children anything wrong.
> What will the children be taught? To include in what they say: "There are physical objects" or the opposite?... (Wittgenstein, 1967, §413).

> But the idealist will teach his children the word 'chair' after all, for of course he wants to teach them to do this and that, e.g. to fetch a chair. Then where will be the difference between the idealist-educated children and the realist ones? Won't the difference only be one of battle cry? (Wittgenstein 1967 §414, see also Wittgenstein 1980: §338–339).

The point of these extended passages is that the divide between realism and idealism is, practically speaking, uninteresting.[135] Both stances are effectively indistinguishable when we consider them in light of ordinary cases. Wittgenstein draws our attention to the fact that *addenda* such as '...and there are mind-independent objects' or '...and there are no mind-independent objects' are paradigm examples of how philosophical language idles.[136] Fine recognises this as well. As he says all, "...the realist adds on [to a core acceptance of ordinary

claims] is a desk-thumping, foot-stamping shout of "Really!" (Fine 1984: 97). Likewise the idealist, or anti-realist, only contributes to, "...the core position a particular analysis of the concept of truth" (Fine 1984: 97–98). Nevertheless it is possible to take our ordinary claims at face value – without such *addenda*. Fine labels this minimalist position the natural ontological attitude.

The point is that to be unimpressed by the posturing of metaphysical realists is not the same as endorsing, in any ordinary sense, the view that there are no mind-independent objects in the world. It is to hold that talk about mind-independent objects is simply talk about the familiar items of our quotidian world – such as tables, armchairs and the like. That is why such a position is at peace with the verdicts of commonsense. This goes against the standard assumption of some thinkers that the default position of the elusive 'man in the street' is that of metaphysical realism. Thus Kitcher tells us that, "Few are born anti-realists" (Kitcher 1993: 130–131).[137] And Kirkham talks of the, "...pre-theoretical notion of correspondence truth" (Kirkham 1997: 103). The latter has the habit of appending the epitaph 'commonsense' to realism. This is related to his analysis that those who accept T – the famous disquotational schema – are committed to a form of quasi-realism.

(T) 's' is true in L iff s

Quasi-realism is the position held by all who accept that the obtaining of fact s makes s true. He regards acceptance of this pre-theoretical notion as being an ontologically neutral common denominator with respect to the dispute between realists and idealists. For he regards the dispute to be one over whether truth-making facts are mind-independent or not (Kirkham 1997: 73–76, 79). But, as Davidson has convincingly argued, this is not in fact the most minimal, nor a philosophically innocent, reading of T (cf. also Wright 1992: ch. 1). Like many others he encourages us to hearken back to the Aristotelian formulation of the definition of truth, as a source of inspiration. Aristotle wrote:

> To say what is that it is not, or of what is not that it is, is false, while to say of what is that it is, and what is not that it is not, is true (*Metaphysics* 1011^{b} 25–27).

Davidson praises this formulation, not because Aristotle is silent on the question of whether we should prefer realism to idealism, but because he allows us to avoid positing truth-makers in the form of individually obtaining states of affairs or facts. As he says, the Aristotelian formulation avoids, "...mention [of] states of affairs..." (Davidson 1996a: 266).[138] But if individual states of affairs don't make sentences true, what does? Bradley has already supplied the answer. As Ferreira writes:

> According to Bradley what we are really saying when we judge (for example) 'This cow is brown' is something like '*Reality is such that* 'this cow is brown'. The *ultimate* subject, we are told, is Reality as a whole, with the complex idea represented by 'this cow is brown' functioning as a complex predicate idea attached to it (Ferreira 1996: 233).

4. The Return of The Absolute

I regard Davidson as a contemporary champion of the cause of Bradleyian relative truths or, as I prefer to call them, contextual truths. And, as noted in the previous chapter, these include the truths of science. The connection between the two may not be immediately obvious. For as Walker writes:

> Nowadays we automatically take truth to be a property of sentences, propositions, or something of the sort, and when he takes it in this way – as a property of judgements – Bradley's view is that there is no such thing as truth, strictly speaking. Every judgement limits and abstracts, and therefore distorts, the reality it seeks to capture. No judgement can capture it fully and still be a judgement, though the less a judgement distorts reality, the truer it is (Walker 1998: 94).

Walker provides a useful explication of Bradley's view, except for the fact that Bradley does not equate abstraction with distortion. However what the above quotation reveals is that the claim that no judgement is strictly true must be understood against the background of some higher standard or conception of truth. But Davidson rejects the very idea of such a higher standard. In one sense this illustrates an important difference between him and Bradley. But in another sense, it highlights a link between them in that they both shun the activity of trying to further explicate a grander notion of truth. Of course, their reasons for thinking this are different. Davidson doesn't think there is such a thing to be explicated whereas Bradley holds that the Absolute can never be discursively characterised. Yet, no matter how we prefer to put it, both philosophers recognise a contrast between our quotidian notion of truth and the grander notion of truth, in which metaphysical realists are interested. It is precisely here that we find vital similarities between Davidson's understanding of contextualised truth and Bradley's relative truths that only have a degree of truth when compared to the Absolute.

As should be clear, I want to endorse Davidson's insights about contextual truths, but I also think we must go a stage further and endorse something like Bradley's vision of the Absolute. My reason for thinking this is, in part,

connected with the debate over whether or not truth should be thought of as supplying an independent norm.

4.1. Truth as and Independent Norm

Wright has argued that truth is an independent norm on the grounds that no matter how we explicate the notion of warranted assertability, we cannot reduce truth to it because the logic of the two notions differs. By appeal to nothing more than the disquotational schema, negation and transitivity of the biconditional, he reveals this difference. Consider that while (1) and (2) are unproblematic, we run into trouble if we simply substitute 'warrantedly assertible' for 'true' as in (3).

(1) 'It is not the case that P' is T if and only if it's not the case that P.

(2) It is not the case that P if and only if it is not the case that 'P' is T.

If we replace T with 'warrantedly assertible' in (2) it will fail because it is possible that our state of knowledge may be neutral with respect to the truth of P in such a way that may not justify assertion or denial. In such circumstances we cannot license (3).

(3) It is not the case that P if and only if it is not the case that 'P' is warrantedly assertible.

On this basis Wright concludes that, "...we are forced to recognise that while 'is T' and 'is warrantedly assertible' are normatively coincident, satisfaction of the one norm need not entail satisfaction of the other" (Wright 1992: 21).

This claim is supported by the fact that there are stages to the development of our conceptual practices which, on the face of it, a purely descriptive interpretative project would miss. Developing a T-theory requires a stable, mature practice of linguistic use. For example, radical interpreters are not primarily interested in the early stages in which a speaker first learns how to *apply* normative criteria (cf. Hutto 1999b: ch. 5). We can expect that charting this activity would generate a confused T-theory for the learner. Nor are they interested in the latter stages in which the possibility of questioning the appropriateness of such criteria is a live one. This too would generate confused results. Radical interpreters are primarily concerned with the task of discovering which criteria are currently in use. They would need to assume this stability in order to check for application and misapplication.[139] But it is the mature practice of questioning the appropriateness of criteria that is of interest to those who claim that truth is an independent norm. It is this practice which is the engine for conceptual change and development. In this respect seeking, truth spurs on the dynamics of this change.

But given problems in explicating truth in terms of correspondence, we have already seen why we must reject attempts to characterise it as an intelligible prize which awaits us at the end of inquiry. Rorty, for example, see this as a good thing. He writes:

> We cannot, I think, imagine a moment at which the human race could settle back and say, 'Well, now that we've finally arrived at the Truth we can relax'. We should relish the thought that sciences as well as the arts will always provide a spectacle of *fierce competition* between alternative theories, movements, and schools. The end of human activity is not rest, but rather richer and better human activity (Rorty 1991a: 39).

Indeed he makes the same point explicitly with respect to those who wish to follow a Davidsonian path with respect to truth. He writes:

> Some Davidsonians might see no reason why they too should not say, ringingly, robustly, and commonsensically, that the goal of inquiry is truth. But they cannot say this without misleading the public. For when they go on to add that they are, of course, not saying the goal of inquiry is correspondence to the intrinsic nature of things, the common sense of the vulgar will feel betrayed. For 'truth' sounds like the name of a goal only if it is thought to name a fixed goal – that is, if progress toward truth is explicated by reference to a metaphysical picture, that of getting closer to what Bernard Williams calls 'what there is *anyway*'. Without that picture, to say that truth is our goal is merely to say something like: we hope to justify our belief to as many and as large audiences as possible. But to say that is to offer only an ever-retreating goal, one that fades forever when we move. It is not what common sense would call a goal. For it is neither something we might realize we had reached, nor something to which we might get closer (Rorty 1998a: 39).

Thus he advises that, "...we [should] continue to speak with the vulgar while offering a philosophical gloss on this speech..." (Rorty 1998a: 44). But the idea that we are not interested in truth but rather in satisfying better and better audiences not only feels *ad hoc* to the layman, it fails to seriously address Wright's concerns about the non-equivalence of the concepts of truth and warranted assertability.

We are thus confronted with an apparent dilemma. We seem to have strong reasons to abandon and yet retain our traditional talk of truth being the goal of inquiry. What should we do? As Aristotle proposed long ago, in attempting to make an explanatory fit, good philosophy ought to strike a balance by incorporating the views of: the wise, those with experience, and those of the ordinary.[140] In this instance, we can square the circle by debunking the naive

picture of truth awaiting us at the end of inquiry and replace it with something like Bradley's vision of the Absolute according to which truth is identified with reality. Of course, this comes with the *proviso* that we will never be in a position to articulate a final truth (cf. McMullin 1984: 35, Boyd 1984: 78). This would partially accommodate both Rorty and Wright.

Furthermore, as we have seen, there are independent philosophical reasons for taking this line. For example, to return to the main theme of this book, such a manoeuvre enables us to resolve the metaphysical problem of consciousness. Thus a good reason to postulate a reality, which we cannot make fully intelligible, is the fact that we cannot make intelligible the relations between all discourses (and their related practices), even though we postulate interrelations between the phenomena they independently describe.

But doesn't Bradley's approach simply revive the old epistemic problems? No. It does not because it does not begin by postulating a split between our conceptions and the world which we need to bridge. The subject-object divide is not understood in the same way as the tradition that inspires radical scepticism. Following Bradley, the claim that our relation to reality is imperfect is based on the idea that our apprehension is, at best, partial. It is not based on the idea that our conceptions are distorted, or that reality is veiled from us, or that our senses or concepts are in some way deceptive. We get part of the truth, but never the whole of it. This fits with the more sophisticated accounts of scientific progress because it incorporates an idea of human flourishing which respects the thought that our concern is with significant questions (Kitcher 1993: 116–117, cf. also Leplin 1984: 196). Armed with this insight, we now address our central question: Does science tell us what is really there? The answer is in the modest sense, to an extent – yes, in a grand sense, no.

4.2. What Explains Scientific Progress?

Unless we think of science as a wholly arbitrary and irrational enterprise we must in some way deal with van Fraassen's claims that scientific theories only survive by being better in some way than those which are not. He writes:

> I claim that the success of current scientific theories is not a miracle. It is not even surprising to the scientific (Darwinist) mind. For any scientific theory is born into a life of fierce competition, a jungle red in tooth and claw. Only the successful theories survive (Van Fraassen 1981: 40).

We might ask: In what way better? One answer is more true. The standard realist line is to appeal to the idea that theories work *because* they are true! This was the basis for Putnam's famous defence of realism according to which he proposed that a theory's success is explained by its truth. For the fact that it is true

ensures that its terms make reference to genuine aspects of the world (Putnam 1984, cf. Laudan 1984: 224–225, cf. Kitcher 1993: 156, Leplin 1984: 203–204).

But while having a completely true theory would, of course, be sufficient to explain the success of science, it is surely not necessary. Nor is it likely that true theories explain the current technological successes of science. This is because, given that we expect our theories to evolve, the current success stories of science do not rest on completely true theories. For example, Laudan, a staunch critic of realism, argues that even successful theories are frequently abandoned at a later date. He provides a catalogue of, "...successful, but (by present lights) nonreferring theories..." (Laudan 1984: 225, cf. also 228, 231). The list includes such classic theories as: the humuoral theory of medicine, the phlogiston theory of chemistry, the caloric theory of heat, the electromagnetic theory of ether and many others. Indeed even the advocates of the correspondence theories of truth generally admit this difficulty. But Kitcher makes a powerful reply to Laudan's gloss by suggesting that the burden is on the anti-realist to show that the successful non-referring elements were in fact *working* posits of these theories and not merely presuppositions. Nevertheless even if we only focus on the real theoretical movers and shakers, those that get preserved during theory change, it is clear that even these develop over time. Hence, at any given time our concepts concerning them are imperfect. For this reason, as truth and content go together, theories that employ such concepts are necessarily less than strictly true. Consequently, given that science is successful, its success is not predicated on the fact that our theories are strictly true. But if prefect truth does not in fact explain the success of science, and *a fortiori* is not necessary to do so, then what else might? There is a spectrum of possible candidates.

Let us begin by considering the parable of Mr. Magoo. Mr. Magoo is a cartoon character with appalling eyesight who, for comic effect, successfully navigates his environment despite the fact that he continually mistakes what he is dealing with for something else. For example, he might mistake a lion's mane for a woman's fur collar. The joke is that he does well enough to get by. Surely his survival is nothing short of a miracle or divine grace. In fact, it is not; he survives in his fictional world by authorial fiat. Magoo has no method to his madness – just good luck. On the other hand, unlike Magoo, it is precisely because science has method that its successes are not miraculous. Indeed it is standard for supporters of Legend to appeal to scientific method when defending the claim that science gets at truth or truth-likeness, which in turn explains its success. As Kitcher writes:

> Champions of Legend acknowledged that there have been mistakes and false steps here and there, but they saw an overall trend toward the accumulation of truth, or, at the very least, of better and better approximations to truth. Moreover, they offered an explanation of both for the occasional mistakes

> and for the dominant progressive trend: scientists have achieved so much through the use of SCIENTIFIC METHOD (Kitcher 1993: 3).

But the question is: How ought we understand the nature of this method – or, better, methods? Traditional attempts to explicate the nature of scientific method by appeal to the deductive-nomological model have been dismal failures because they have no rational means of accommodating progress. Moreover, such accounts appear overly intellectualised when we consider that what really sets modern science apart is its experimental techniques. As Sambursky notes, one vital difference between today's scientists and their early counterparts, such as those practising from the time of Thales to Ptolemy, is the fact that although the latter were adept at theorising about astronomy and mathematics, specifically geometry, they were neither technologically nor experimentally accomplished (cf. Sambursky 1956: 2, ch. x). Crucially, in a direct parallel with the defenders of Legend, the preference for theoretical over experimental or technical science explains, in part, why, for them, "Logic and deduction were more important than induction and experience..." (Sambursky 1956: 225, 226–227). For example, even though ancient Ptolemaic astronomers were able to achieve remarkable predictive successes by using these methods alone, Sambursky argues that this case is special because of the relative stability of the phenomena in question. He notes that, unlike terrestrial physics, "Here is a case where nature provides man with all the advantages of laboratory investigation..." (Sambusrky 1956: 232).

In this light we can see the importance of distinguishing scientific method, intellectually conceived as requiring the preservation of truth, from what we might call experimental method. Indeed once we draw this distinction, we can fruitfully ask: Is it theory or experiment which drives modern scientific progress? In response to this query, Hacking emphasises the crucial role experimentation plays in guiding theory change. He claims that there are, "...the innumerable examples in which an intervention enables an experimenter to undertake another inquiry which in turn makes clear the route which the theoretician must follow" (Hacking 1983: 178). For the moment we need not give a decisive answer to the either/or question I posed. However it is important to recognise that, at the very least, the success of modern science depends, at least in part, on its refinement of experimental techinque.

One crucial upshot of recognising this is that if experimentation, as opposed to pure theorising, plays a crucial part in the success of modern science, then we need not think that it is the truth of theories that does the real work in explaining how and why such science is instrumentally viable. Indeed in a paper of the same name, Levin rightly asks: What sort of explanation is truth? He notes that, "One normally explains a phenomenon by citing the mechanism that brought it about or sustains it....And here is my problem: what kind of mechanism is truth?" (Levin 1984: 125–126). For example, he suggests the explanation of why aeroplanes stay

aloft is that, 'The pressure on the underside of the moving airfoil is greater than that on its overside'. Nevertheless the fact that this claim is true does not explain why aeroplanes stay aloft. For, as Levin observes, "...the explanatory work is clearly done within the quotes" (Levin 1984: 127, cf. Boyd 1984: 60). Our explanation is suitable to the extent that the description of the underlying mechanism is accurate or at least instrumentally reliable but it does not follow that it is the truth of our claims that does the explaining. Put simply, aeroplanes don't fly because our theories about them are true. Quite the reverse of Putnam's supposition, the reason why we think our current theories about flight are true, more or less, is in part because aeroplanes do fly. Moreover, in order to build them, it isn't necessary that we know the whole truth or indeed any truth about why they stay aloft. Engaging successfully with the world doesn't *require* theorising, even if it helps. Consider that our ancestors were successful enough in their nonconceptual responses to the world, despite the fact that their responses were relative to specific needs and did not rely on full or accurate representation (Hutto 1999c: 3–4). The vast majority of organisms have been honed to respond successfully to the world, without having any theories at all – true, partially true or otherwise. If this is right, why should we expect that the artificial products of modern science must be underwritten by a true theory?

One reason may be because we think that true theories set the frame for all successful experiments and investigations. But the idea that experiments, and the devices we created to carry them out, are just products of theorising is a hangover of an overly intellectualist view of science. It is, at best, oversimplified to think that scientific theorising always precedes technological development or always generates technology as product, rather than *vice versa*. This idea is standardly rejected in the literature of technophilosophy on both philosophical and historical grounds (cf. Ihde 1991: 9, cf. also Kitcher 1993: 117). My earlier question, about whether it is theory or experiment which drives scientific change, was badly posed. There is no simple answer to it because the relation between theorising and experimentation in modern science is extremely complex and interactive.

Nevertheless once we accept the idea that modern science brings us into systematic contact with reality primarily through the art of experimentation, not *via* theory, we may be encouraged to adopt some form of entity realism. Thus in drawing his important distinction between representing and intervening, Hacking stresses that, "...experimenting is not stating or reporting, but doing – and not doing things with words" (Hacking 1983: 173). And on this basis he claims that, "Only at the level of experimental practice is scientific realism unavoidable – but this realism is not about theories or truth" (Hacking 1991: 247). It is just here that we find a large degree of consensus amongst those who are concerned to debate the question of scientific realism.

For example, Kitcher has very plausibly proposed that the reference potential of a term is fixed by its compendium of modes of reference. These modes of

reference will be a mixed bag, both indexical and descriptive (Kitcher 1993: 78, cf. also M. Williams 1998: 28). With this apparatus in hand, he is able to make sense of Priestley's interactions with oxygen in a way that enables us to recognise the value of these early experiments. For, despite the fact that his flawed language of de-phlogistonised air belies a flawed conception, Priestley's descriptions show that he was referring to the element we now call oxygen in his experiments. And unless we take his dominant intention to refer to that which was produced during the experiments – i.e. pure oxygen – we will have great difficulty in make sense of many of his reports. How else could we explain why his lungs 'felt lighter' when breathing non-existent de-phlogistonised air? The beauty of Kitcher's interpretation is that it enables us to avoid a purely intellectual, descriptivist conception of reference that otherwise makes conceptual development a non-starter. However, to explicate his views on reference, he relies on a version of the Davidsonian principle of correspondence which he finds embodied in Grandy's principle of humanity (Kitcher 1993: 101–105).

Likewise Putnam pushes the same line when he encourages us to adopt what he calls 'the principle of the benefit of the doubt'. This principle enables him to make sense of cases of approximate referential fit in such a way that enables him to explain cross-theoretical reference. He writes:

> ...we can answer Kuhn by saying there are entities – in fact, just the entities we now call 'electrons' – that behave like Bohr's electrons in many ways (one to each hydrogen atom, negative unit charge, appropriate mass, etc.). And....the principle of the benefit of the doubt dictates that we should in these circumstances, take Bohr to have been referring to what we call 'electrons'. We should just say we have a different theory of the same entities Bohr called 'electrons' back then, his term did refer (Putnam 1984: 145, 1988: 13–14).

It is interesting that Putnam remains unconvinced about pholgiston in particular (cf. Putnam 1984: 143–145). He writes, "But benefit of the doubt can be *unreasonable*, we do not carry it so far as to say that 'pholgiston' referred" (Putnam 1984: 146). Yet this is too strong. For without a hard and fast criterion of reasonableness to hand, Kitcher's more liberal approach is superior. The point is that any question of descriptive reference is always a matter of degree.

The result of these considerations is that, in order to make sense of transtheoretic reference, we must recognise a capacity for nonconceptual engagement with aspects of the world, as suggested by what Ihde calls the praxis-perception model. This derives from the phenomenological school of philosophy (cf. Ihde 1991: 16–31). For example, Ihde discusses cases from Husserl and Merleau-Ponty which ostensibly concern, "... a kind of 'know how' without explicit conceptual judgement attached to them. But they are more – they are examples of how artifacts (technologies) may be used or experienced in use" (Ihde

1991: 29). He makes the latter point by drawing on Merleau-Ponty's example of the blind man's cane. Merleau-Ponty writes:

> The blind man's tool has ceased to be an object for him, and is no longer perceived for itself; its point has become an area of sensitivity, extending the scope and active radius of touch, and providing a parallel to sight (Merleau-Ponty 1962: 143).

In this light it is hardly surprising that in order to explain theoretical reference we need to invoke something like Davidson's principle of correspondence. For, as I construe it, that principle presupposes that, for there to be joint reference, there must be a common ground in the way in which the interpreter and interpretee pre-conceptually experience the world. It should be clear that, in endorsing this line, at most, one is required to take some form of entity realism seriously. This is so despite the fact that Kitcher approvingly quotes Devitt's remark that entity realism "...is anti-realism with a fig leaf" (Kitcher 1993: 169, Devitt 1991: 15). But although entity realism is modest enough to meet the approval of most anti-realists, it is not anti-realist *per se* (cf. Laudan 1984: 220, 222–224). We can avoid anti-realism by appeal to something like Fine's natural ontological attitude, which I defended earlier. Indeed, although Kitcher admits to finding Fine's idea 'elusive', he notes that, "If it can indeed find its way, then, perhaps it can accommodate large parts of my account of scientific progress..." (Kitcher 1993: 134, footnote 11).

But if we opt for some form of entity realism, how ought we square this with van Fraassen's observation that, "...science tries to place us in a position in which we have explanations..." (Van Fraassen 1981: 99)? We require a balance. For if, as seems manifest, science is concerned with theoretical explanations and not just nonconceptual experimental interactions, we will need to show how these two aspects inter-relate. However, if we accept that in order to understand conceptual development, our explanations, however useful, must be necessarily imperfect then they are best understood as something like McMullin's fertile or fruitful metaphors (McMullin 1984: 31). An example of such a metaphor would be that which saw the planets as 'wanderers'. This metaphor was fertile in the pre-Copernican context, given that it seemingly explained the fact that only planets, as opposed to other more fixed heavenly bodies, appeared to move. But although this was a start, the metaphor is less than perfect because it makes an unreal distinction. For example, if our forefathers had keener senses they would have noted that all heavenly bodies 'wandered' to some extent (Kitcher 1993: 96).

Nevertheless what makes the metaphoric conception of theorising attractive is precisely that it allows for the dynamic, dialectical development of concepts. For metaphors generally only get part of the story and they can be expanded upon, pared back or improved in specific ways. As McMullin writes:

> The important thing to note is that there are structural continuities from one stage to the next, even though there are also important structural modifications (McMullin 1984: 33, 18).

It is here that we can see a connection with Bradley's rejection of traditional accounts of deductive inference. He refused to regard these as genuine forms of inference, precisely because their mechanical nature ensures that they can bring nothing new to light.[141] In contrast, he saw proper inferences as requiring a dialectical mix of 'something old and something new' (cf. Ferreira 1996: 239–240). Furthermore, the notion of acceptance, at work when we talk of *accepting* a scientific theory, is arguably a pragmatic notion which is not best understood in terms of true belief (cf. Cohen 1989: 386). This takes us full circle. For it might be thought that, although treating theoretical constructs as fertile metaphors fits well with the idea that theories aim at truth, at best such constructs attain verisimilitude (cf. Leplin 1984: 202, Kitcher 1993: 159, Kirkham 1997: 32). This is non-trivially similar to the Bradeylian idea that truth comes in degrees. Following Popper and Laudan we can formally explicate verisimilitude in the following way:

> ...a theory, T1, is approximately true if its truth content is greater than its falsity content, that is
>
> $$Ct_T(T_1) >> Ct_F(T_1),$$
>
> where $Ct_T(T_1)$ is the cardinality of the set of true sentences entailed by T_1, and $Ct_F(T_1)$ is the cardinality of the set of false statements entailed by T_1 (Laudan 1984: 229).

Yet Laudan is right to complain that even if we accepted this formalisation, or something like it, "Until someone offers a clearer analysis of approximate truth than is now available, it is not even clear whether truth-likeness would explain success" (Laudan 1984: 229). It might be thought that one could make good on this requirement by appeal to fertile metaphors themselves. To an extent one can, but McMullin rightly warns us of the risks in making free with unqualified talk of approximate truth (McMullin 1984: 35). In line with the idea that, when theorising, the relevant doxastic state is one of acceptance rather than belief. For the fact is that, when we accept or reject explanations, it is because we find them more or less satisfying – not more or less true. This is clear, given that we have no independent means of gauging a given explanation's proximity to the truth other than by appeal to how well it works in practice and how intellectually satisfying it is in terms of its fit with whatever else we accept. If this is correct, then we must reverse the way we traditionally think about truth and justification when it comes

to explaining the success of our theories. Successful engagement with the world partly determines whether or not we accept a theory. It also determines the extent to which we count it as true, not *vice versa*. It is only by recognising this that we can begin to make a principled reply to questions about scientific progress, the march of science, and Kuhnian revolutions. But of course this is not the whole story. The problem of accommodating the rationality of science, alongside the fact of its on-going development, boils down to the problem of accommodating the fact that we can make up and change our minds about how things stand, without this equating to our simply making things up. We need to be tethered, but not too tightly.

In this respect, the problem is really the Kantian problem of harmoniously marrying our capacities for receptivity and spontaneity, writ large. It is the problem that takes centre stage in McDowell's *Mind and World*. How is it that we can exercise judgement and 'make up our minds' about things within rational constraint, without wholly abdicating our intellectual responsibility and falling back into the Myth of the Given? We want to be free, but not too free. Pure forms of coherentism threaten to secure this capacity for rational deliberation only by keeping the world at bay; whereas pure forms of empirical foundationalism bring the world in as constraint but only by sacrificing our ability to contribute to the development of knowledge. McDowell's Platonic naturalist answer is to regard perceptual experience as inherently conceptual. Consequently we are in unmediated contact with the wider world but, at the same time, it is answerable to reason. Interestingly, as Wright notes, this is, "...not a *rejection* of the Given" (Wright 1998: 397). It is only a different, more expansive way of characterising it. In the light of my views about the origins and nonconceptual character of experience, as detailed in chapter one, I cannot accept this answer. Nevertheless McDowell's question is a vital one and pertinent to the issue at hand.

In the end, we cannot make an appeal to the world in order to justify our practices, nor explain their success. The situation is more complex. For although we are anchored to the world nonconceptually, by our senses and experimental techniques, in order to have understanding, however imperfect, we need the engines of social standards, dialogue and debate. Initially, when learning our concepts – scientific or otherwise, we inherit a picture of reality but it develops and changes as we question and probe it. Part of what constrains theoretic change are our nonconceptual engagements with reality. But another constraint is that our theories ought to fit together, when and where possible, and at the very least they should not contradict one another. A metaphor's fertility can be assessed along these two axes. Philosophy of science must be suitably realist and dialectical (cf. Boyd 1984: 60–61). And it will be if we endorse entity realism and the idea that scientific explanations involve metaphors. And although I have argued that even our best final theory will not be a perfect final fit, there is scope for real

development within limits. And that is enough to give us the right degree of freedom.

5. Conclusion

Russell once famously admonished Meinong by insisting that there is, "...a feeling of reality which ought to be preserved even in the most abstract studies" (Russell 1919: 169). Although Russell's concern in saying this was to insist that one should not be tempted to postulate unreal entities in logic, in a different way I want to emphasise that accepting absolute idealism allows us to preserve a healthy respect for a reality that is not of our making, without thereby endorsing analytic philosophy's intellectualist vision of it.

We are the measure of all things but, practically speaking, that which we measure is surely independent of us. Yet given the nature of our measuring tools, be they perceptual or conceptual, we only measure things imperfectly. Imperfectly does not mean uselessly. The world is real enough, with or without science – but prior to the development of a language and the capacity for conceptual abstraction – aspects of it cannot be said to be true or false (cf. Hutto 1999b: ch. 3–4, Walker 1998: 106). Thus one ironic conclusion of *The Presence of Mind* was that adopting an exclusive scientific world-view leads us to conclude that science cannot be a quest for truth, as traditionally understood. This does not mean that there is no theoretical progress to be had in creating fertile scientific metaphors or that we don't get better at successfully engaging with aspects of reality by means of technology. But there is no final, complete, objective truth to be told about reality. Not even one stateable in the longest imaginable proposition. Consequently, not even an ideal physics can discursively characterise the world as it is in extension. This being so, we must look beyond physicalism to a metaphysics that permits both tolerance and unity.

Notes

Chapter One

1 This understanding fits with Jackson's criticisms of Berkeley on the objects of sense perception (Jackson 1977: 7–8, cf. also Lockwood 1989: 138–139).

2 As Carruthers has noted in such cases we must distinguish between worries about cognitive overload and phenomenal overload. He is concerned with the former and I the latter (cf. Carruthers 1996: 169–170).

3 Lycan discusses this example of Block's in an attempt to show that it does not follow that experential content is not representational. At this stage I am only concerned to show the intuitive attraction of this distinction (cf. Block 1995, Lycan 1996: 135–136).

4 These examples should make us receptive to Malcolm's appeal, "...isn't there a great deal of *human* consciousness that doesn't involve thoughts or propositional content? I stop my car at an intersection because the light is red. I was aware of the red light and was also aware the light was red. Did I think to myself, 'That light is red'? Probably not" (Malcolm 1977: 57, emphasis mine).

5 Ramachandran and Hirsten have pointed out that in some blind spot experiments certain positive perceptual features pop out at the subject. They ask, "How can something you are ignoring pop out at you? This means that not only does the blindspot have qualia associated with it, but that qualia can provide 'sensory support' and therefore are being filled in preattentively, so to speak" (Ramachandran and Hirsten 1997: 436).

6 Tye believes that this gives us reason to regard vision as cognitively impenetrable. He tells us that the, "...perceptual processes that operate on the retinal input in a largely fixed, autonomous manner" (Tye 1996: 102). It is worth noting, however, that what we think can affect how we interpret what we see. As Kuhn writes, "In a psychological experiment that deserves to be far better known outside the trade, Bruner and Postman asked experimental subjects to identify on short and controlled exposure a series of playing cards. Many of the cards were normal, but some were made anomalous, e.g. a red six of spades and a black four of hearts" (Kuhn 1970: 62-63). It was observed in the

experiment that subjects were unable to identify the anomalous cards properly; rather, they substituted answers which corresponded to the colour of what they judged the correct suit should be. These cases show evidently that our perceptual judgements can be affected by conceptual expectation. Nevertheless, there is a limit to the extent to which our perceptual beliefs can be influenced. As Price says referring to his own example, "We do not mistake a wall or an elephant for Smith, nor even a scarecrow, however much we want (or fear) to see him. We have to see or hear or touch something which resembles him fairly closely" (Price 1967: 49).

7 He pointedly says of this phenomenon that, "Its causes are of interest to psychologists. We are interested in the concept and its place amongst the concepts of experience" (Wittgenstein 1953: 193e).

8 Apart from this data, there is other evidence to suggest that such similarities exist. For example, subjects tend to respond in the same way to both seen and imagined vertical and horizontal stripes. This is known as the oblique effect (cf. Block 1983: 583, Currie 1995a: 32).

9 Consider the following remarks of Clark and Bermúdez which are both inspired by Gibson's approach. Clark writes, "Perception....is, from the outset, geared to tracking possibilities for action" (Clark 1997: 50, cf. also 51). And Bermúdez writes, "...perception is an active process that involves movement and takes place over time" (Bermúdez 1998: 108).

10 In Currie's own words, "...the case for calling imagery the simulation of vision rests on three claims: that vision and imagery employ substantial parts of the same central-processing system but have different inputs and outputs, that these outputs are similar in structure and function; that imagery is evolutionarily parasitic on vision" (Currie 1995a: 29).

11 This suggests a further explanation of the phenomena of the cognitive penetrability of descriptively generated images. Although largely encapsulated from belief as Currie points out, in its off-line processing mode the inputs will be 'information rich' as opposed to the purely visual, 'informational poor', analogue inputs (cf. Currie 1995a: 37).

12 The link is best explicated in the following way, "...imagery is strongly dependent on vision in this sense: that an account of the kind of experience that visual imagery gives will make essential reference to the notion of seeing" (Currie 1995a: 37).

13 Furthermore Peacocke has pointed to another problem with McDowell's reply. He claims, "This would imply that the fine-grained representational content of experience of two people, neither of whom has the general concept 'shade', but one of whom has the concept 'scarlet', and the other who has only 'red' but not 'scarlet', would differ at the finest-grained level. This seems to me incorrect. Rather, there is a single shade (an analogously shape) that they both experience, and in the same ways. It is one which makes available various different demonstrative concepts to the two subjects, depending on the richness of the repertoire of general concepts" (Peacocke 1998: 382).

14 As Nagel sees it any given experience is relative to *a single point of view* (Nagel 1979: 167). This claim is usually bound up with acceptance, tacit or explicit, of some form of Cartesianism or aspect thereof. As Kenny notes, "The introduction of *Cogito* as the defining characteristic of the mind is tantamount to the substitution of privacy for rationality as the mark of the mental" (Kenny 1973: 119). Or again in the same paper "Descartes' innovation was to identify the mental with the private" (Kenny 1973: 120). Or, as Malcolm says, "A philosopher feels himself in a difficulty about other minds because he assumes that first of all he is acquainted with mental phenomena 'from his own case'" (Malcolm 1963: 137). The result of this is, "...a rigorous solipsism" (Malcolm 1963: 137).

15 Because Andrew Whiten is persuaded that an intellectualist observation of behaviour is all we have to go on when responding to others, he is encouraged to wonder about the difference between mind reading and what he calls 'smart behaviour reading' (Whiten 1996, Smith 1996).

16 They contrast this view of how simulation is accomplished with more theory-driven conceptions. Hence they write, "An appeal to theoretical notions such as heavenly bodies revolving around one another can be contrasted to use of a planetarium-model to predict the star's appearance. (Here we want to be careful to focus on a user of a planetarium who has no deeper understanding of its workings and not focus on the planetarium's creator, who presumably understood something theoretical about planetary motion in order to build a successful device" (Gopnik and Wellman 1992: 159). Gordon is adamant, however, that this model-theory is in fact a misrepresentation of the simulation heuristic. He writes, "If I am right, the simulator is not using one individual, himself, as a model for another..." (Gordon 1992: 32).

17 Gopnik and Wellman make this quite explicit by suggesting that simulation supports, "...a venerable philosophical tradition, going back to Descartes. This is the tradition of emphasising the special importance of the first-person case in understanding the mind." (Gopnik and Wellman 1992: 146, 160, cf. also Carruthers 1996: 30, 37-38).

18 Smith has used this expression in my presence on a number of occasions. Once at a workshop on normativity at Merton College, Oxford and once at a paper he delivered at Hertfordshire.

19 To put the point in relation to Dennett's new theory of consciousness, it is not the result of an analysis of their behaviour or the subject's ability (or lack thereof) to produce a heterophenomological text.

20 For example she admits, "No hint was given of how a unified perspective might emerge or, indeed, what this would mean. And, finally, no problems were raised about how the bat distinguishes itself as a self, as distinct from the rest of the world. All these difficult representational questions were ignored" (Akins 1993a: 154).

Chapter Two

21 Farrell anticipated Nagel's argument by some years, even by coining the phrase "what-it-is-like-to-be-a-bat". His statement about experience is remarkably similar to Nagel's (cf. Farrell 1950: 35). Nagel has acknowledged this debt (see Nagel 1986: 15).

22 Dennett remarks, "If the bat could talk, for instance, it would generate a text from which we could generate a heterophenomenological world, and that would give us exactly the same grounds for granting it consciousness that serve for any person. But, as we have just noted, bats can't talk" (Dennett 1991c: 445-446).

23 In the case of animals and other pre-verbals, as Dennett says, "...we start naturally, from our own experience and most of what then springs to mind must be adjusted (mainly downward)" (Dennett 1991c: 447).

24 He writes, "...after Mary sees her first ripe tomato, she will realize how impoverished her conception of the mental life of others has been all along." (Jackson 1997: 568).

25 Lycan raises other objections against a purist version of the ability hypothesis, but I do not review them because they are convoluted by his endorsement of the view that experience is cognitive and representational (cf. Lycan 1996: 91–108).

26 Cussins writes, "Evans saw that contents can be cannoically specified by the theorist's referring to abilities of the organism, where the abilities are not (or need not be) part of the realm of reference....These abilities are not available to the subject as the content's referent, but they are available to the subject as the subject's experience-based knowledge of how to act on the object, and respond to it." (Cussins 1992b: 655). He has spoken of a contrast between the world presented as truth-maker as opposed to it being presented as

the realm of activity ('Nonconceptual Content Conference', University of Hertfordshire, 1st November, 1997).

27 According to Nagel, "...fundamentally an organism has conscious mental states if there is something that it is like to *be* that organism – something it is like *for* the organism" (Nagel 1979: 166). To highlight this Dretske notes the distinction between creature consciousness of the kind of which Nagel speaks and state consciousness, where 'conscious' is an accolade we apply to certain mental states as opposed to others (Dretske 1995: 98).

28 As Biro notes, it is with qualia in mind that consciousness, " ...is claimed to be essentially theory-resistant. Paradigms of this kind of state are sensations of various sorts, such as sense perceptions and pains and itches, as well as what one might call images of these....What these states are like only the creature who has them (or creatures sufficiently like it) can *know* – and, most importantly, no objective theory can *say* (Biro 1993: 181).

29 Thus Lycan writes, "...there is not a *special* problem about consciousness or awareness over and above the problem of intentionality as traditionally framed" (Lycan 1988: 71).

30 There are good reasons to understand normal conditions in a decidedly etiological, or historically-based fashion (cf. Hutto 1999c: ch. 3). For this reason Millikan says that normal conditions could also be described as, "...historically optimal conditions" (Millikan 1993: 87, cf. also 28).

31 She writes, "The production and 'consumption' of the icon may be accomplished by any mechanisms designed, biologically or in some other way, to co-operate in the iconing project. For example, the dances that honey bees execute to guide fellow workers to nectar are paradigm cases of intentional icons" (Millikan 1993: 107).

32 Remember that on Millikan's model, we need not assume that the consumer is a separate organism rather than a mere mechanism inside a single creature. So nothing interesting about icon consumption changes if it goes on inside a creature's head.

33 Millikan has suggested this is how her account of intentionality solves this problem in her talk "Intentionality: A Naturalist Approach", presented to the Philosophy Society of the University of Hertfordshire, 5th March, 1998.

34 Frege's thesis might be seen as another way of expressing the famous conclusion of Descartes' meditations: *Cogito ergo sum*. In its modest form the *Cogito* remains unscathed, even today. It would be difficult, if not impossible, to doubt its truth.

35 To forestall confusion it is useful to note that, "Selves and persons 'have' both minds and bodies – but 'having' is not to be understood univocally for both cases. Selves 'have' mind inasmuch as they are essentially subjects of mental states – of thoughts, experiences, intentions and the like. But they 'have' bodies in a quite different and genuinely relational sense: for persons and their bodies are each distinct kinds of entity in their own right" (Lowe 1996: 1).

36 It comes from a film call "Mind Movies" presented by Daniel Dennett.

37 Van Gulick explores the Kantian idea that experience has a structure. I agree but I do not accept that that structure needs to be cognitive *per se*, only that in our case it is related to cognition.

Chapter Three

38 Chalmers also formulates the hard problem in this way as well. He writes, "The hardest part of the mind-body problem is the question: how could a physical system give rise to conscious experience" (Chalmers 1996: 25). Tye effectively divides the metaphysical problem into the problems of mechanism and phenomenal causation (cf. Tye 1996: 15-19).

39 Andy Clark sums up the received view of this episode in the history of the philosophy of mind by remarking, "Behaviourism [that of Ryle, not of Skinner] would have done the trick, but its denial of the importance of inner states was perceived as a fault. Identity theory it seems had gone to far in the other direction. Between the Scylla and Charybdis sailed the good ship functionalism" (Clark 1989: 23).

40 It is important to note that, "...a Turing Machine need not even be a *machine*. A Turing Machine might very well be a biological organism" (Putnam 1967a: 412).

41 As Shoemaker says, "Functionalism, as a general theory of mind, should be understood as the thesis that all mental states are functionally definable in the strong sense [i.e...that no mental terminology occurs in the *definiens*]" (Shoemaker 1984: 311).

42 In a similar vein, Flanagan has stressed the importance of the neurochemical basis of experience in a bid to emphasise an important difference in the functional architecture of brains and computers (Flanagan 1991: 315–317).

43 I owe this observation to a talk at a philosophy weekend in 1998 by my colleague Richard Menary.

44 Churchland calls these correspondence rules (cf. P.M. Churchland 1989: 47)

45 Even so Johnston better captures the spirit of the position when he says, "The form of this statement ('the mind must be reducible to the brain') already suggests that is not an empirical claim but embodies a commitment to a certain approach..." (Johnston 1993: 213).

46 As Churchland says, "...there are arguments from other positions within the materialist camp to the effect that such match-ups are rather unlikely" (P.M. Churchland 1988: 29).

47 Disjunction follows from the fact that if, "...the same kind of higher level units (e.g. cells) can be made out of different types of lower level constituents (e.g., different macromolecules) then a different bridge law will be required in each instance" (Bechtel 1988b: 73). Possibly infinite disjunction follow from the fact that higher-order discourses need not be closed – as Hookway says, "...it is a feature of the events forming a kind that we can identify new cases which differ from the familiar ones" (Hookway 1988: 76). These facts, of course, cast doubt not only on the type-type identity theories but on the possibility of *explaining* psychological behaviour by reference to brain activity because psychological explanations depend upon our ability to locate the appropriate kinds which are 'significantly alike' (cf. Hookway 1988: 76-77).

48 I am not happy with talk of introspection (cf. Hutto 1995b: 466). I only use it here since many of the authors discussed use it.

49 Papineau explains the source of his label as follows, "I propose to call the above fallacy the 'antipathetic fallacy'. Ruskin coined the phrase 'pathetic fallacy' for the poetic figure of speech which attributes human feeling to nature ('the deep and gloomy wood', 'the shady sadness of a vale'). I am currently discussing a converse fallacy, where we refuse to recognize that conscious feelings inhere in certain parts of nature, namely, the brains of conscious beings" (Papineau 1993b: 177).

50 Dennett's view on this issue has been evolving ever since 1969. In its mature stage he began to contrast genuine scientific posits with the logical constructs we generate when describing our experiences. This is why he thinks that there are genuine scientific questions about consciousness but no interestingly philosophical ones (cf. Dennett 1985: 180–181, Cam 1987, Dennett 1987b).

51 He tells us, "The reader of a novel lets the text constitute a (fictional) world, a world determined by fiat by the text" (Dennett 1991a: 81).

52 As Dennett puts it, "We might classify the Multiple Drafts model....as first-person operationalism for it brusquely denies the possibility of consciousness of a stimulus in the absence of the subject's belief in that stimulus". (Dennett 1991a: 132, emphasis mine). This aspect of Dennett's account has been attacked by Michael Tye (Tye 1993: 895-896).

53 His definition of a virtual machine is as follows, "...a virtual machine is a temporary set of highly structured regularities imposed on the underlying hardware by a programme: a structured recipe of hundreds of thousands of instructions that give the hardware a huge, interlocking set of habits or dispositions to react" (Dennett 1991a: 216). Dennett is able to help himself to this kind of account, for even though Joycean texts are serial in nature and the brain's architecture is parallel (and not serial) in character there is no reason why, in principle, a parallel architecture cannot generate a virtual machine which makes use of serial operations. This latter point is supported by the fact that serial virtual machines can be generated by existing parallel hardware.

54 As Bricke says, "His intentionalist theory is best view as a successor of the folk psychology of consciousness" (Bricke 1985: 248).

55 When describing this criterion Bricke uses the adjectives, "...austere, regimented, coherent" (cf. Bricke 1985: 249).

56 This view he now espouses as the doctrine of causal supervenience. (Searle 1992: 125-126)

57 For example, he writes, "...what I really mean is consciousness *qua* consciousness, *qua* mental, *qua* subjective, *qua* qualitative is *physical*, and physical *because* mental. All of which shows, I believe, the inadequacy of the traditional vocabulary" (Searle 1992: 15)

58 He does not seem to realise that he literally contradicts this position when he later claims that under his account consciousness is, in fact, a natural phenomena. What he really means by the claim of non-naturalism above is that consciousness will not reduce to the material or physical.

59 Flanagan criticises McGinn's for proposing an either/or option of approaching consciousness from above or below. Instead, he hopes to approach in both directions at the same time through his natural method.

60 We are told, "...we know there are such facts, but we cannot actually identify them, even in principle" (McGinn 1991: 88)

Chapter Four

61 As Dennett reminds us, "The prevailing wisdom, variously expressed and argued for, is *materialism*: there is only one kind of stuff, namely *matter* – the physical stuff of physics, chemistry, and physiology – and the mind is somehow nothing but a physical phenomenon. In short, the mind is the brain" (Dennett 1991a: 33).

62 Melnyk bites the bullet here and defends the physicalist who, "...holds that physicalism, while literally false, is nevertheless closer to the truth, a better approximation to the truth than its rivals" (Melnyk 1997: 624). I will deal with the very idea that a physicalist could rest easy with talk of verisimilitude in chapter seven.

63 This concession is important if we are to give any sense to the notion of what counts as the physical while noting, nevertheless, that concept is in the process of development. Hookway is right when he rhetorically asks and answers the following question, "What then is the 'physical'? Surely this cannot be defined as what is studied in present-day physics. For that will almost certainly be false or inadequate (or both)" (Charles 1992: 280).

64 Or as he puts it elsewhere, "Seeing-as demands bringing the sensory input under the appropriate schema" (Tye 1996: 104).

65 As Folse points out, in quantum physics, "...the observed properties of the system must be considered as *relational* rather than *possessed* (or 'inherent') properties" (Folse 1996: 128). This is what gives the quantum physical domain, "...a kind of wholeness which precludes attributing a classical mechanical state to the observed object as an isolated system..." (Folse 1996: 130).

66 Bohm gives a very succinct and useful description of the background assumptions that set up the problem (Bohm 1981: 66)

67 Or as Paul Davies puts it, "Nobody questions what the theory predicts, only what it means" (Davies 1989: 4)

68 It is important to note that Dennett classifies *all* materialists who foolishly, by his lights, mix their austere metaphysics with 'the imagery of the Cartesian Theatre' under this heading (Dennett 1991a: 107, see also Kirk 1993: 335). That is to say, even those materialists who take consciousness to be indiscreetly spread across the brain, rather than easily locatable, will be branded as Cartesians so long as they subscribe to the model of the mind as an inner theatre (cf. Seager 1993: 117). For a fuller discussion of the character of this manoeuvre (see Malcolm 1986: ch. 10).

69 In fact, many see the essential problem with this tradition, as Searle has taken to calling it, is that, "...the only real choices available [are] between some form of materialism and some form of dualism". (Searle 1992: 2). However, although Searle is aware of this problem, he does less well at finding a new vocabulary to employ.

70 As Wittgenstein remarked, "...We talk of processes and states and leave their nature undecided. Sometime perhaps we shall know more about them – we think. But that is just what commits us to particular way of looking at the matter" (Wittgenstein 1953: § 308).

71 Indeed, the reluctance to discuss consciousness may be in part, as Lycan suggests, because, "Most materialists have simply relied on the bad press of sense–datum theories in recent decades and taken for granted that no right–thinking persons believe in phenomenal individuals..." (Lycan 1987: 84).

72 A useful and targeted guide to Wittgenstein's views on this matter can be found in Paul Johnston's fine book (Johnston 1993). If we look systematically at the aspects of the inner which Johnston sees as Wittgenstein's concern then, *prima facie*, Dennett's views appear quite similar.

73 This is why he tells us, "'Mental' for me is not a metaphysical, but a logical, epithet" (Wittgenstein 1992: 63e).

74 The rest of the passage reads, "When I was an undergraduate he was my hero, so I went to Oxford, where he seemed to be everybody's hero. When I saw how most of my fellow graduate students were (by my lights) missing the point, I gave up trying to "be" a Wittgensteinian, and just took what I thought I had learned from the *Investigations* and tried to put it to work" (Dennett 1991a: 463).

75 In this he is carrying through a project which can trace its origins to his first published work, *Content and Consciousness* (Dennett 1969). John Bricke gives a detailed and critical examination of that early project (Bricke 1984, 1985).

76 If this reading is correct then Dennett's position is far more radical than Wittgenstein's. In fact, Dennett has happily admitted this to be the case. He wrote, "I choose to take a stand that may well be a more radical stand than Wittgenstein's" (Dennett: 1990 524). He has even gone as far as to describe this stand as uncompromising eliminativism (Dennett 1990: 245).

77 This is related to Wittgenstein's views on lying about our psychological situation. "If I lie to him and he guesses it from my face and tells me so – do I still have the feeling

that what is in me is no way accessible to him and hidden? Don't I feel rather that he sees right through me? (Wittgenstein 1992: 33e). "It is as if he became *transparent* to us through a human facial expression" (Wittgenstein 1992: 67e). "When my gesture and circumstances are unambiguous then the inner seems to be the outer..." (Wittgenstein 1992: 63e).

78 We must never treat an investigation into grammar as merely looking at how we happen to talk about objects. For we are told, "Essence is expressed by grammar" (Wittgenstein 1953: §371) and "Grammar tells us what kind of object anything is..." (Wittgenstein 1953: §373).

79 As Searle notes, "...the vocabulary I use to describe the table – "There's a lamp on the right and a vase on the left and a small statue in the middle" – is precisely that which I use to describe my conscious visual experiences" (Searle 1992: 131). He also gives excellent reasons for thinking the entire introspectionist understanding of consciousness is ill-motivated and based on a naive metaphor (cf. Searle 1992: 97). This also fits with Currie's simulation of vision hypothesis about mental imagery outline in chapter one, section 2.4. For according to Currie, "We do not rotate an inner shape; nor need we be supposed to perform operations on quasi-shapes. We simulate the experience of seeing an outer shape rotated" (Currie 1995a: 40).

80 Dretske regards brains states as the mere vehicles of experiential content which ought not to be confused with the experiential content itself (cf. Dretske 1995: 35, cf. also 3).

81 A cruder means of locating conscious experience as taking place wherever the person or organism who is having the experience is, of course, not ruled out by this suggestion. I owe this observation to my friend and colleague Dr. Paul Coates.

Chapter Five

82 Such pluralism is described by Cussins in the following way, "...pluralism is not discriminatory: it is neither scientistic nor humanistic. Pluralism denies very little at the primary level of discourse: it does not reject a non-scientific level of discourse for being non-scientific; nor does it reject a non-person-based discourse level for being non-person-based. It rejects only those putative levels of discourse which are unable to maintain their internally established conditions of success" (Cussins 1992a: 184)

83 Dennett also believes that, "...if we look carefully at [the popular lay] ideology of folk psychology we find it pretty much Cartesian - dualist through and through" (Dennett 1991b: 17).

84 This change in usage partly explains why today many psychologists, philosophers and biologists do not wish to be accused of vitalism or dualism (cf. Mayr 1981: 60, 63–64, Kitcher 1991: 567, Rosenberg 1985: 24–25, Gasper 1991: 546, Hull 1984: 31). Mechanists often make their case on these sorts of ground, "Unless one is tempted by dualism, it is plausible to think that theories explaining the behaviour of various sorts of robots and theories explaining the behaviour of various sorts of organisms will be at least roughly analogous" (Stich 1983: 167).

85 McLaughlin has point out that for the sake of plausibility it is best to read global supervenience as suggesting that the worlds in question share the same or similar world-wide patterns of property distribution, not that the world's themselves can be ascribed certain properties (McLaughlin 1995: 31).

86 Given this we may have to answer Cussins in the affirmative, when he asks, "Is metaphysics wholly posterior to intralevel explanation (a philosophical story added on top for the sake of a narrative community)?" (Cussins 1992a: 186).

87 Still some complain that without a more elaborate underlying theory of events this criterion is shallow and apt to confuse (cf. C. Macdonald 1989: 122, 236, McLaughlin 1985: 344). In response Davidson reminds us that the same holds true of the way in which we individuate objects (cf. Davidson 1980: 176, 180). And in his view, "Grammar allows no such confusion" (Davidson, 1985d: 176).

88 This is one way of expressing Papineau's completeness of physics principle (cf. Papineau 1993a: 16).

89 Hylton tells us, "Beginning with the publication of Stirling's *The Secret of Hegel* in 1865, idealism gradually became the orthodox view among most active philosophers in Britain." (Hylton 1993: 448)

90 Put another way the, "...purpose of philosophy [was] the rational knowledge of the absolute....[and] the absolute is that which does not depend on anything else in order to exist." (Beiser 1993: 4). This is remarkably akin to Descartes definition of a substance.

91 Mander puts this well by saying, "While there exists a difference between the subjective and the objective realms of being....it seems that we must always remain sceptical about genuine knowledge" (Mander 1994: 9).

92 In this I agree with Armour, when he writes, "But what is finally to be said about this Absolute? That it is the one and only reality? Perhaps *nothing* can be said about it." (Armour 1996: 116)

93 Bradley is explicit about this. He writes, "The chief need of English philosophy is, I think, a sceptical study of first principles..." (Bradley 1930: viii). And as Mander also notes, "For Bradley tensions are overcome by showing that they are not really in opposition at all – that is to say, by showing that the contradictions are all in our conceptions, an ultimate reality is wholly non-contradictory. Bradley was unable to accept Hegel's dictum of genuine and ineliminiable contradictions at work within reality" (Mander 1994: 54).

94 Armour sees this as generating further issues about Bradley's understanding of philosophy. Following James Bradley's suggestion that he offers a non-intellectualist criterion of reality. Armour writes, "Reality lies in what is before us. One must understand, further, that the experiences which F.H. Bradley is describing undercut any analysis which sees experience in terms of what is presented to the mind or to any 'subject'. The presented unity, if it is really super-relational cannot be understood in terms of any classical epistemological relation" (Armour 1996: 114).

95 This idea is recently set out self-consciously by Lockwood (cf. Lockwood 1989: 158, 177, 240).

96 Like Putnam, we must accept that, "There are 'external facts', and we can *say what they are*. What we *cannot* say - because it makes no sense - is what the facts are *independent of all conceptual choices*" (Putnam 1987: 33).

97 Cussins reminds us that, "...a thoroughgoing naturalist takes every real phenomena to be a part of, or an aspect of, nature" (Cussins 1992a: 187)

98 Hill's particular concern is to advocate type materialism but the argument, if sound, would work just as easily for token materialism.

Chapter Six

99 Again the case of Russell proves tricky, since he would not have endorsed this tenet, in some periods. For as his views developed he became increasingly more interested in epistemological issues.

100 It is here that we can see why analytical philosophers were so concerned with the philosophy of mathematics. For, on their view, acceptance of the metaphysics of absolute idealism made, "...it impossible to give a coherent account of mathematical thought. For asymmetric relations essential to mathematics, such as 'is greater than' or 'is the successor of', are not reducible to properties of the *relata* without regress....Recognition of external relations not only liberates the philosophy of

mathematics; it also abolishes the monism of the Absolute, and admits that reality consists of a plurality of things" (Hacker 1996: 9). Moreover mathematics was of interest and importance to analytic philosophers since it was a paradigmatic domain of rigorous, well established scientific (i.e. true) knowledge. Due to some seemingly irresolvable paradoxes it was in danger of being interpreted in psychologistic, Hegelian fashion (cf. Monk 1997: 43–47). If it could be shown that mathematics was grounded in an appropriate logic, one that required the reality of external relations, then Absolute Idealism, it was thought, would be refuted. For this reason, "The philosophy of mathematics was, for Russell, a sort of crucial experiment – a testing ground on which the relative merits of Idealism and Platonic Atomism [his first version of analytical philosophy] could be definitively judged" (Hylton 1990: 115).

101 He says specifically of the Quinean version of this project that, "Metaphysics conceived of in this fashion, is simply the most general principles of our current scientific picture of the world. Its results are as changeable and self-corrective as the best of our scientific theories, and, accordingly, it risks its dignity in the same manner" (McHenry 1996: 162).

102 Whitehead's approach is seen as more ambitious because, "For Whitehead, the metaphysician attempts to establish a foundation for the unity of the special sciences" (McHenry 1996: 163).

103 We find this similar detachment of science and metaphysics elsewhere in his writings. Following a remark about the doctrine of materialism we find him saying, "We have not to ask here if this view is scientific, in the sense of being necessarily used for work in some sciences. That has, of course, nothing to do with the question now before us, since we are inquiring solely whether the doctrine is true" (Bradley 1930: 12).

104 Ironically, as Galen Strawson notes, "...materialism is not better off than idealism, from the positivist point of view, as an overarching metaphysical hypothesis about the ultimate nature of reality" (Strawson 1994: 36).

105 For a challenge to this view see (Kitcher 1993: 106).

106 For example, these conditions on what constitutes a sound metaphysics can been traced back at least as far as Aristotle. He saw the natural world as infused with a kind of logical order – one which was available for our study by paying attention to the way in which we use the categories of our language to describe it. We see this theme surfacing in his logical treatises *Topics* and *Categories*. But he did not think the way in which we understand the world is held hostage to the way we happen to categorise it for certain purposes. No doubt we can devise and often use artificial or conventional classificatory

schemes at times. But Aristotle's view is that there is also a more natural means of classifying things. If we consider biology again we might try to classify all animals into one of two categories, say, 'winged' or 'wingless'. No doubt for certain purposes this would be useful. But if our purpose was to understand the true nature of animals such a scheme would be inadequate. A much better first division would be between 'winged', 'land' and 'aquatic' animals (cf. Smith 1995: 52).

107 The comparison with genes is apt, "The relevant genetic units in evolution are not sets of genes defined in terms of structural similarity but lineages formed by the imperfect copying process of replications" (Hull 1994: 197).

108 "Whether one thinks that 'Moses' is a proper name, a cluster concept, or a rigid designator, '*homo sapiens*' must 'be treated' in the same way" (Hull 1994: 195).

109 This is so despite the fact that ecological theorising plays a crucial role in evolutionary theorising (cf. Dupré 1993: 42–43).

110 For example, Dupré notes that ecology requires treating, "...members of a species as members of a kind" (Dupré 1993: 42).

111 As Hull reports, "An ecological niche is a relation between a particular species and key environmental variables. A different species in conjunction with the same environmental variables could define a quite different niche. In the past biologists have tended to play down the integrating effect of the environment, attributing whatever unity and coherence which exists to the integrating effect of gene complexes." (Hull 1994: 200).

112 Although Bohm certainly did at times speak of 'hidden variables' it is ironic that he should be regarded as a defender of some form of classical realism. Indeed many of Bohm's philosophical remarks reveal his position to be much closer to that endorsed by Bradley than one might at first suspect. For example, compare the following remarks from *Wholeness and the Implicate Order* with the views of the absolute idealists:

> "...fragmentation is continually being brought about by the almost universal habit of taking the content of our thought for 'a description of the world as it is'" (Bohm 1981: 3)

> "....what should be said is that wholeness is what is real, and that fragmentation is the response of this whole to man's action, guided by illusory perception, which is shaped by fragmentary thought" (Bohm 1981: 7)

> "...what is called for is not the integration of thought, or a kind of imposed unity, for any such imposed point of view would itself be merely another fragment. Rather, all our different ways of thinking are to be considered as different ways of looking at the one reality" (Bohm 1981: 7–8).

"...we can, in specified contexts, adopt other various forms of insight that enable us to simplify certain things and to treat them momentarily and for certain limited purposes as if they were autonomous and stable, as well as perhaps separately existent" (Bohm 1981: 11).

113 There is a great deal of debate concerning the proper reading of the Copenhagen Interpretation – however to the extent that it supports aspectualism it is consistent with Bradley's absolute idealism.

114 He boldly writes at the end of chapter III of *Appearance and Reality* that, "The reader who has followed and grasped the principle of this chapter, will have little need to spend his time upon those which succeed it. He will have seen that our experience, where relational, is not true; and he will have condemned, almost without a hearing, the great mass of phenomena." (Bradley 1930: 29).

115 Indeed we must use the term system with extreme caution in relation to Bradley, for as he says in the opening lines of his preface, "I have described the following work as an essay in metaphysics. Neither in form nor extent does it carry out the idea of a system" (Bradley 1930: vii). For as Armour writes, "But what is finally to be said about this Absolute? That it is the one and only reality? Perhaps *nothing* can be said about it" (Armour 1996: 116).

116 Cartwright has argued that even if the case of physics, to the extent that its statements do concern such ceteris paribus clauses, they are strictly speaking false. Indeed Mander has appealed to Cartwright on this issue to defend Bradley's philosophy of science (cf. Mander 1991).

Chapter Seven

117 In a similar spirit McHenry wishes to defend the view that, "...science will determine what there is (even if what there is turns out to be non-physicalist)..." (McHenry 1996: 174). I am unconvinced that science can do this. At the very least, it cannot do so unassisted.

118 As Kitcher notes, "...Legend adopts a static model of human knowledge" (Kitcher 1993: 219).

119 This relates nicely to Wittgenstein's remark that, "The limit of language is shown by its being impossible to describe a fact which corresponds to (is the translation of) a sentence without simply repeating the sentence (This has to do with the Kantian solution the problem of philosophy)" (Wittgenstein 1980a: 10e).

120 Doesn't this go against Wittgenstein? What of his comment that, "...the extension of the concept is not closed by a frontier....For how is the concept of a game bounded?....Can you give the boundary?" (Wittgenstein 1953: §68). Thus, "We do not know the boundaries because none have been drawn. To repeat, we can draw a boundary for a special purpose. Does it take that to make the concept usable? Not at all" (Wittgenstein 1953: §69 cf. also §79-80). However, despite making these remarks Wittgenstein also admits that, "We could imagine a language in which different verbs were consistently used in these cases. And similarly more than one verb where we speak of 'believing', 'hoping', and so on. Perhaps the concepts of such a language would be more suitable for understanding psychology than the concepts of our language" (Wittgenstein: 1953: §577). This might suggest that we could develop a more scientific psychology which avoid the sloppy terms of ordinary language. But we should not forget that, "If someone were to draw a sharp boundary....[h]is concept can then be said to be not the same as mine, but akin to it" (Wittgenstein 1953: §76). The point is that a scientific psychology, which might be useful in its own right, could not simply replace commonsense psychology by bettering it. This is the reason why attempts to reduce certain concepts to others is doomed to failure. The best we can do is simply eliminate them. But this is not always a real option.

121 It is for this reason that Davidson insists that, "...causality plays an indispensable role in determining the content of what we say and believe" (Davidson 1986a: 317).

122 As Evnine says, "Causation....is a non-holistic relation between a belief and an object or event. If we hold that what a belief is about is determined by what causes it, we allow the possibility of a gap between what a belief is about, and what else is believed about that thing" (Evnine 1991: 150). Evnine sees Davidson's programme as threatening to endorse a causal variant of the scheme/content distinction, the third dogma of empiricism, which Davidson himself denounces.

123 Davidson tells us, "Communication depends, then, on each communicant having, and correctly thinking the other has, the concept of a shared world. But the concept of an inter-subjective world is the concept of an objective world, a world about which the communicant can have beliefs" (Davidson 1985c: 480). As he also says, "We have the idea of belief only from the role of belief in the interpretation of language, for as a private attitude it is not intelligible except as an adjustment to the *public norm* provided by language" (Davidson 1984: 170). He even acknowledges Wittgenstein's influence on his thought on these matters, "Someone who has a belief about the world – or anything else – must grasp the concept of objective truth, of what is the case independently of what he or she thinks. We must ask, therefore after the source of the concept of truth. I believe Wittgenstein put us on the track of the only possible answer to this question. The source of the concept of objective truth is interpersonal

communication. Thought depends on communication. This follows at once if we suppose that language is essential to thought, and we agree with Wittgenstein that there cannot be a private language" (Davidson 1991a: 157).

124 He tells us, "...we no longer need to explain meaning on the basis of possible confrontation" (Davidson, 1986a: 307). Instead he has adopted the slogan, "...correspondence without confrontation" (Davidson 1986a: 307). This is possible because, "...it is not the speaker who must perform the impossible feat of comparing his belief with reality [i.e., what caused it]; it is the interpreter who must take into account the causal interaction between the world and speaker to find out what the speaker means and hence what he believes" (Davidson 1986b: 332). "My approach is....externalist: I suggest that interpretation depends (in the simplest and most basic situations) on the external objects and events salient to both the speaker and the interpreter, the very objects and events the speaker's words are then taken by the interpreter to have as a subject matter. It is the distal stimulus that matters to interpretation" (Davidson 1990b: 321).

125 As Rorty puts it, "...if one follows Davidson, one will not know what to make of the issues between realist and anti-realist. For one will feel in touch with reality *all the time*" (Rorty 1986: 145).

126 Lear makes this point well by saying, "The Metaphysical Subject need not be conceived, as Kant thought, as lying outside the world, nor, as the early Wittgenstein thought, as its limit: it is we who live in the world. What we are confronted with is not the limit of the world, but the limit of the anthropological stance" (Lear 1986: 292).

127 Or as he puts it, "...in making manifest the large features of our language, we make manifest the large features of reality" (Davidson 1984: 199). He writes, 'A community of minds is the basis of knowledge; it provides the measure of all things. It makes no sense to question that standard or to seek a more ultimate one" (Davidson 1991a: 264). He tells us, "It would be good if we could say how language came into existence in the first place, or at least give an account of how an individual learns his first language, given that others in his environment are already linguistically accomplished. These matters are, however, beyond the bounds of reasonable philosophic speculation" (Davidson 1991a: 157). As Maker says, "Our general ability to know and describe what there is – at this juncture – is taken for granted" (Maker 1991: 356).

128 Indeed as Evnine claims, "Davidson's realism is realistic only in the negative sense that his naturalist semantics leaves no room for idealism" (Ramberg 1989: 48)

129 Rée describes this kind of activity vividly as, "...a gorging on reality until one's mental gut [is] fit to burst" (Rée 1997: 19).

130 Rée recognises this when he says, "It makes no sense to say either that subjectivity exists, or that the world exists: subjectivity and the world together create the environment in which questions of existence arise" (Rée 1997: 6). The best reply is that, "Idealism as philosophically interesting and shocking presupposes the intelligibility of a radical, unbridgeable gulf between mind or language and the world in order then to deny it. It presupposes the intelligibility of the radical other inaccessible to language which Davidson has deconstructed" (Maker 1991: 360).

131 The echoes are unmistakable. I believe that this is the precise manoeuvre which Wittgenstein was gesturing at when he remarks, "...solipsism, when its implications are followed out strictly, coincides with pure realism" (Wittgenstein 1922: 5.64). This idea is also expressed in Wittgenstein's notebooks with direct reference to idealism. He says, "In this way idealism leads to realism if it is strictly thought out" (Wittgenstein 1969: 85).

132 For example he tells us that, "Every language-game is based on words 'and objects' being recognised again" (Wittgenstein 1967: §455).

133 Smart provides an excellent comparison of these two thinkers on just this issue (cf. Smart 1986: 98–100).

134 In the surrounds of this remark Wittgenstein is careful to distinguish between the commonsense man and the commonsense philosopher. As Hacker points out this is because the commonsense philosopher is likely to be some kind of naive realist of a Johnsonian sort – and hence they will have no power to settle the debate since they are a participant in it (cf. Hacker 1986: 226–227). I believe this is connected with Wittgenstein's view that one cannot give a commonsense answer to a philosophical problem. (Wittgenstein 1958: 58–59).

135 In the *Investigations* he makes this explicit by saying, "...the solipsist [does] not want any practical advantage when he advances his view" (Wittgenstein 1953: §403, see also Wittgenstein 1958: 59). This follows swift on the heels of remarks which echo points made in *The Blue Book*, " – when....we disapprove of the expressions of ordinary language (which are after all performing their office), we have got a picture in our heads which conflicts with the picture of our ordinary way of speaking. Whereas we are tempted to say that our way of speaking does not describe the facts as they really are....For this is what disputes between Idealists, Solipsists and Realists look like. The one party attack the normal form of expression as if they were attacking a statement; the

others defend it, as if they were stating facts recognised by every reasonable human being" (Wittgenstein 1953: §402). This is why 'A philosophical problem has the form: 'I don't know my way about'" (Wittgenstein 1953: §123).

136 Hacker's way of putting this is as follows, "...everything the realist wishes to say can be said; and nothing the transcendental solipsist (idealist) wishes to say can be spoken of. There will be no practical disagreement between them, nor will they quarrel over the truth-values of propositions of ordinary language" (Hacker 1986: 104).

137 Nor is the self-evidence of realism isolated to the commonsense domain. As Laudan suggests, "One might note in passing how often, and on what evidence, realists imagine that they are speaking for the scientific majority" (Laudan 1984: 236).

138 Indeed he argues the same holds for Tarski (Davidson 1996a: 268).

139 Hence one could be forgiven for thinking that the important contrast is between an individuals and the community, since the latter is typically more stable.

140 As he remarks, "...For it would be best if everyone would turn out to agree with what we are going to say; if not that, that they should all agree in a way and will agree after a change of mind; for each man has something of his own to contribute to the finding of truth..." (*Eudemian Ethics* I.6).

141 This fits with Fodor's recent realisation that the language of thought hypothesis has no means of rationally accounting for abductive inferences. He made this observation in his talk to the Jowett Society, Balliol College Oxford one 5th May 1999.

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Unlike standard attempts to address the so-called 'hard problem' of consciousness, which assume our understanding of consciousness is unproblematic, this book begins by focusing on phenomenology and is devoted to clarifying the relations between intentionality, propositional content and experience. In particular, it argues that the subjectivity of experience cannot be understood in representationalist terms. This is important, for it is because many philosophers fail to come to terms with subjectivity that they are at a loss to provide a convincing solution to the mind-body problem. In this light the metaphysical problem is revealed to be a product of the misguided attempt to incorporate consciousness within an object-based schema, inspired by physicalism. À similar problem arises in the interpretation of quantum mechanics and this gives us further reason to look beyond physicalism, in matters metaphysical. Thus the virtues of absolute idealism are re-examined, as are the wider consequences of adopting its understanding of truth within the philosophy of science. This book complements the arguments and investigations of *The Presence of Mind*, which it partners.

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