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Spatial thought and active experience

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Thesis submitted for the degree of Ph.D. in Logic and Metaphysics,

the University of St. Andrews,

24th April 2000.



Abstract

In the following thesis I attempt to argue that some form of activity is necessary if a subject is to be able to partake in spatial thought and undergo conceptual, spatial experience. I approach this issue by considering a thought experiment of Galen Strawson, concerning the passive creatures that he calls the 'Weather Watchers', and by attempting to demonstrate that such passive creatures could not meet certain requirements necessary for conceptual spatial awareness.

I argue against the idea that such passive beings could possess spatial concepts by employing certain transcendental arguments that connect the possession of particular concepts to the having of certain sorts of experience. More specifically, I claim that in order to view oneself as located in space and to make sense of the causal relations holding between oneself and other spatial items, one must possess the concept of a material object. I argue that the possession of this concept is only available to those subjects able to actively interact in certain ways with other objects. Next, I argue that the ability to grasp the distinction between veridical and non-veridical experience is essential if one is to grasp that one's perceptual experience represents something other than one's own states, and that a passive subject will have no means by which it might achieve such a grasp. Parallels are drawn between this approach and that of P. F. Strawson and Gareth Evans.

Finally, I attempt to demonstrate that the spatial content of sensation alone is inadequate for full conceptual, spatial awareness. This section draws upon Brian O'Shaughnessy's work on the *body image*.

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Introduction

Within the empiricist tradition, it has been standard to treat experience as a purely passive phenomenon. Experience comes to the mind from outside; it is the starting point for knowledge and awareness, and thus logically prior. For just such reasons, it comes before any activity on the part of the subject of experience. Thus we have Locke stating that “in bare naked *perception*, the mind is, for the most part, only passive; and what it perceives it cannot avoid perceiving”.¹ He goes on to expand upon this by claiming

the *understanding* is not much unlike a closet wholly shut from light, with only some little opening left, to let in external visible resemblances, or *ideas* of things without; would the pictures coming into such a dark room but stay there, and lie so orderly as to be found upon occasion, it would very much resemble the understanding of a man in reference to all objects of sight and the *ideas* of them.²

The very notion of *impressions* or *ideas*, which, as Hume puts it, “arise in the soul”, carries with it the assumption of passivity. We just find ourselves with these, and all knowledge proceeds from them. Passive experience first, knowledge and activity second.

Such opinions, however, are not limited to the empiricist tradition. For example, in *Mind and World*, his recent book intended to develop certain of Kant’s central doctrines whilst avoiding some perceived tensions, John McDowell makes much of the passivity implicit in experience. He claims that

one’s control over what happens in experience has limits: one can decide where to place oneself, at what pitch to tune one’s attention, and so forth, but it is not up to one what, having done all that, one will experience.³

This is the point he ‘insists’ on, and most of the argument throughout the book turns upon it. Although it does indeed seem a ‘minimal’ (and correct) point, McDowell places far more emphasis upon it than might be expected. Given that

¹ Locke (1706), Bk. II, Ch. ix, §1.

² *ibid.*, Bk. II, Ch. xi, §17.

the aim of the book is to explain “the way concepts mediate the relation between minds and the world”⁴, this suggests that McDowell sees activity as having no crucial role to play within this relationship. It is arguable that many of the more problematic aspects of McDowell’s account stem in part from this emphasis upon passivity.

The reasons for this focus vary from writer to writer, but it is worth mentioning two widespread factors. First, we have the profound influence of Descartes upon the philosophy of mind as a whole. Even divested of a dualist metaphysics and a rationalist epistemology, his influence can be found in the widespread retention of a fundamental distinction, even though this is now generally seen as holding between that which is within the subject (or the subject’s brain) and that which falls outwith her rather than between distinct metaphysical kinds.⁵ This new distinction, of course, is central to most internalist accounts of the mind, and it is within such accounts that we generally find this focus upon passivity. Certainly, the two can come apart, but it is understandable that if one sees the contents of one’s experiences as only extrinsically connected with the (apparent) causes of the experiences then one is unlikely to place great stress upon one’s interactions with an external environment which may or may not exist. Secondly and relatedly, the advances made in the study of the mechanisms employed within the various sense-organs might incline one to focus upon explanations of experience given in broadly subpersonal terms, at which level discussion of the active influence of the subject seems redundant. If one sees the explanation of the physical, neurological origins of experience as the central project of the study of the mind then one is unlikely to look far beyond the boundaries of the brain (or the central nervous system or the skin) for the details of one’s account. It is unlikely, for example, that one will find many references to the intentional activity of the subject in any reductionist account of consciousness in particular or the mind in general.⁶

³ McDowell (1994b), p. 10, fn. 8.

⁴ *ibid.*, p. 3.

⁵ See Burwood et al, (1998) and McCulloch (1995) for good discussions of the Cartesian influence in later materialist philosophies of mind.

⁶ The psychologist J. J. Gibson has been criticised for just such reasons by those with reductionist tendencies.

Few discussions of experience, however, place as much stress upon passivity as Galen Strawson does in his book *Mental Reality*.⁷ In a thought experiment—what he calls “an argument by description”—he discusses the case of the ‘Weather Watchers’.⁸ These are purely passive creatures whose mental lives are remarkably like our own, despite the fact that they cannot act in any way. In Strawson’s view, the ability to act has precious little to do with the ability to possess and employ concepts, including those concepts relating to an objective, spatial world.

It is this widespread belief concerning the primacy of the passive factors within conceptualized experience that I wish to dispute. I do not wish to claim that experience is not passive in certain crucial respects; rather, I wish to argue that some degree of activity is required if one is to be able to employ spatial concepts. How we should attempt to characterize the varying degrees of activity will be the topic of the first chapter, but we can for the moment note that one can alter one’s experience in a number of ways. One might look around, close one’s eyes, run one’s hands over an unseen surface, tilt one’s head this way or that, or focus upon a particular aspect of one’s experience to try and stop noticing a toothache, to give some examples.

I intend to argue for the necessity of activity by attempting to demonstrate that a purely passive creature could not possess or employ spatial concepts. We will use Galen Strawson’s Weather Watchers as a case study in this context. In Chapter One we will be concerned with the various ways in which a subject might be active, and the corresponding ways in which this activity is limited. The second chapter will cover the range of ways in which a subject might think spatially; to this end, I will attempt to present a thorough taxonomy of the spatial frames of reference which a subject might employ. Chapter Three will present the first two of the arguments intended to demonstrate that passive experience is insufficient for spatial thought; these arguments will turn upon (i) whether a passive subject could possess the concept of a material object, and (ii) whether such a subject could make sense of the distinction between veridical and non-

⁷ G. Strawson, (1994).

⁸ *ibid.*, Ch. 9.

veridical experience. The final chapter will present an argument to the effect that any spatial content that might be thought to be intrinsic to sensation will not allow a subject access to spatial concepts in the absence of bodily activity.

Some brief comments before moving on. Firstly, it is worth stating that I am specifically and exclusively concerned with a *conceptual* awareness of spatial relations. That is, the kind of awareness involved in: the ability to reflect upon matters of distance and location; the ability to plan one's action and movement; and the ability to grasp in thought or speech the significance of spatial relations between objects including oneself, to give some examples. We will not, therefore, be concerned with whether or not animals or preconceptual infants can get about in the world, or correctly respond to spatial stimuli, or whatever. The level at which the discussion holds should become clear throughout the following.

Secondly, I want to note that the approach taken throughout the thesis is greatly influenced by the work of Peter Strawson. In the influential second chapter of his book *Individuals*, Strawson attempts to uncover the relationship between objectivity and spatiality.⁹ In particular, he is concerned with whether an objective world must be a spatial world.

He approaches this question by means of a thought experiment, discussing whether there could be a subject who had only auditory experience but could still employ objective concepts; in order to do so, this subject must have use for "the distinction between himself and his states on the one hand, and something not himself or a state of himself, on the other", this being one of "the conditions for a non-solipsistic consciousness".¹⁰ By approaching his main question by means of the 'auditory world', Strawson also serves to bring out some the issues involved in the perception of a *spatial* world, as well as those connected to the objective world with which he is concerned.

It is the issue of spatiality with which I am concerned. I wish to consider the subject of the preconditions of spatial awareness: just what is involved in

⁹ P. F. Strawson (1959). Chapter Two is entitled 'Sounds'.

one's ability to perceive and reflect upon a spatial world? Strawson's work is of particular relevance in two ways: firstly, the use of thought experiments; and secondly, the importance placed upon the connection between the having of certain sorts of experience and the possession of certain concepts. This will be plain throughout the discussion.

Finally, we should note that despite the general trend towards viewing experience as passive, there are some notable exceptions. We can find examples of philosophers within the continental tradition such as Merleau-Ponty, psychologists such as J. J. Gibson, and the occasional Anglo-American philosopher such as Stuart Hampshire.¹¹ Hampshire's key work on this topic, *Thought and Action*, appeared in the same year as *Individuals*. Unfortunately, it has not been accorded the same interest in recent years. This in part explains why assumptions concerning the place of passivity within experience can still be made by many today without much comment.

A large debt of gratitude is owed to my supervisor, Leslie Stevenson, for more advice than I could possibly detail here, and to my examiners, Bill Brewer and Fraser MacBride for some extremely useful feedback.

¹⁰ *ibid.*, p. 59.

¹¹ Merleau-Ponty (1962); Gibson (1968); Hampshire (1959). More recent philosophers, whose work will be discussed throughout the thesis, include Brian O'Shaughnessy, Christopher Peacocke, Leslie Stevenson, Michael Martin and Bill Brewer.

Chapter One: **Action, Experience and the Passive Subject**

In this chapter I consider an apparent counterexample to the main thesis from the current literature and use this to clarify the thesis and to introduce a discussion of the various forms of activity with which we will be concerned and their phenomenology.

§1.1 Spatial thought, activity & the Weather Watchers

§1.1.1 Introducing the Weather Watchers

In Chapter Nine of his book *Mental Reality* Galen Strawson introduces us to the ‘Weather Watchers’.¹² These beings, he states,

are a race of sentient, intelligent creatures. They are distributed about the surface of their planet, rooted to the ground, profoundly interested in the local weather. They have sensations, thoughts, emotions, beliefs, desires. They possess a conception of an objective, spatial world. But they are constitutionally incapable of any sort of behaviour, as this is ordinarily understood. They lack the necessary physiology. Their mental lives have no other-observable effects. They are not even disposed to behave in any way.¹³

The lives of the Weather Watchers are completely unlike our own, but their mental lives are supposed to be in many ways remarkably similar. They have beliefs, desires, expectations, sensations and a whole host of fully conceptualized thoughts. They can also experience their surroundings—in fact, we can even imagine that they possess many of the same types of sense organs as we do, and have just as rich an experiential life. It might seem that the only thing that the Weather Watchers would lack in their mental lives would be the ability to plan action.

One of the most interesting aspects of this thought experiment is that it challenges any assumptions that we may have concerning how intimately our

¹² G. Strawson (1994).

¹³ G. Strawson (1994), p. 251.

inner mental lives are connected to our lives as active, physical beings existing within an external, physical world. We might, after all, be inclined to suppose that many of the thoughts, etc., that we have are made possible by virtue of the fact that we are beings of the kind we are, and a fundamental part of our nature is that we are agents. This may well be so, but Galen Strawson's "argument by description" challenges us to consider just what it is about ourselves that allows us to possess the rich and interesting mental lives that we do. And the answer might be that very few of our features and capacities have any role to play here at all. While commenting upon P. F. Strawson's 'auditory universe' thought experiment, Gareth Evans notes that "there is a frame of mind in which it is surprising ... how *little* a subject seems to need to think objectively".¹⁴ Galen Strawson seems to belong to a similar school of thought on the matter of what is required for a subject to think *spatially*.

I wish to challenge the claim that the existence of a creature such as a Weather Watcher is possible, on the grounds that a purely passive creature would be unable either to possess or to employ spatial concepts. Roughly, the thesis that I will argue for is the claim that *if a subject is to possess the concept of a spatial world then that subject must be (or have been) active* (the claim will be clarified as we proceed). As it stands, the story of the Weather Watchers appears to contradict this claim, in that if such a creature could indeed exist then no such connection between activity and the possession of spatial concepts can hold. However, before we can proceed to examine the case of the Weather Watchers as a putative counterexample there are certain clarifications that must be made, concerning both the central claim of the present work (in particular what exactly would count as a relevant form of activity), and the situation of the Weather Watchers. I want to turn to the Weather Watchers first, and attempt to establish just how Galen Strawson regards them. I will claim that there is a tension in his account between the ways in which he treats bodily and mental action, and I will offer a reading of the scenario which avoids this while providing something closer to the counterexample we require. While the resulting story may not be

¹⁴ Evans (1980), p. 77 (this article can also be found in Evans (1985a), although page references relate to the 1980 publication). See P. F. Strawson (1959), Ch. 2 for the 'auditory universe' story.

Strawson's own, it will present a more obvious case study for the present thesis, and may even be more in keeping with certain of the claims that Strawson makes for his Weather Watchers (particularly those claims concerning mental action, as we will see). This in turn will lead us to the wider issue of just what sorts of activity and passivity are possible and thus be very pertinent to the present thesis.

§1.1.2 Neobehaviourism

Before looking at the situation of the Weather Watchers, I want to comment upon one of the main aims in Strawson's book, which is to argue against what he calls 'neobehaviourism'. This, as he puts it, is the doctrine that

mental life is linked to behaviour in such a way that reference to behaviour enters essentially and centrally into any adequate account of the nature of almost all, if not all, mental states and occurrences.¹⁵

Strawson distinguishes several different types of neobehaviourism. First is the strongest form, in which it is held that for a being to have any mental properties it must also engage in some observable behaviour. Next to this comes the position that although a creature need not actually perform such behaviour, it must at least be *disposed* to do so if it is to have mental properties (otherwise the paralysed would be denied mentality). Strawson terms this the 'dispositional thesis'. Next comes a somewhat conciliatory form of neobehaviourism, which holds that even the dispositional thesis is too strong, that a mental life, albeit one that falls substantially short of the complex and interesting one had by human beings, is possible for purely passive creatures, i.e. creatures not even disposed to act in any way whatsoever. Such a mental life might just consist in the having of sensations such as sounds and smells (and surely little else), but it is still nevertheless a mental life.

Strawson disputes all of these positions, holding that even the concession made in the last is insufficient. He holds that it is entirely possible that a creature could exist that was not disposed towards any form of action or behaviour yet possessed a mental life as rich as our own. The thought experiment concerning the Weather Watchers is, as he puts it, an "argument by description" to such an

¹⁵ G. Strawson (1994), Preface, p. xi.

effect.¹⁶ That is, he attempts to show that the existence of such beings is a possibility by giving a coherent and plausible account of their situation.

As suggested in the Introduction, the reasons why I wish to dispute the apparent possibility that such creatures should exist do not turn upon the merits or failings of neobehaviourism; instead, I wish to deny the thought experiment for another reason. I hold that no purely passive creature such as a Weather Watcher could possess the *spatial* concepts that we employ in our day-to-day lives because the necessary preconditions for the possession, and therefore the employment, of such concepts cannot be met by any non-active creature. Thinking in spatial terms, and experiencing a spatial world, require certain active abilities that are not available to the Weather Watchers. This activity certainly involves some degree of physical behaviour; why mental activity is insufficient will be considered at a later stage. It is worth stating explicitly that I am not making these claims with the aim of supporting any of the above neobehaviourist positions. I am making no claims concerning mental states in general, nor am I making any claims concerning all concept possession. There might (for all I argue here) be creatures out there with interesting mental lives and reasonably complex conceptual capacities who lack the ability or disposition to act in any way, but if I am right, any capacities they may have could not include those related to the cluster of spatial concepts that are fundamental to our own thought and experience. My arguments differ from those offered by neobehaviourists in that they do not turn upon any criterion concerning the necessity of a subject *exhibiting* observable behaviour to a third party if it is to be attributed with the possession of certain concepts by that party; instead, they turn upon what would allow a creature to develop or possess those concepts. Just as if a person is to possess and employ colour concepts he or she must be sighted,¹⁷ so the possession and employment of spatial concepts will require certain abilities, in particular *active* abilities.¹⁸

¹⁶ *ibid.*, p. 252.

¹⁷ More specifically, if he or she is to possess and employ colour concepts in a *non-parasitic* way. The blind can, of course, possess and employ such concepts in a way that is parasitic upon the use of the terms by the fully sighted. Cf. §2.2 below.

¹⁸ As opposed to, say, the ability to have certain sorts of experience, which is a passive ability.

§1.2 The Varieties of action

§1.2.1 Action & behaviour

We can now turn to the details of the story of the Watchers. In this section I wish to consider Galen Strawson's account of the forms of activity denied to the Watchers in order that we may gain a clearer insight into the ways in which a non-passive subject might be active and might experience itself as active. This in turn will allow us to alter the story of the Weather Watchers to provide a clearer putative counterexample to the main thesis, a matter we will return to in the closing section of the present chapter. To turn back to the situation of the Watchers, there are several questions that arise immediately: just how closely does a Weather Watcher's mental life mirror that of a standard adult human? Can they control their thought? In particular, can they focus upon particular aspects of their perceptual experience, either by using their sense organs or by reflective thought alone?

Strawson himself answers some of the questions but, given that his interests are not identical to our own, there are still some areas of potential confusion. Many of these relate to the degree to which the Weather Watchers are capable of anything that might be called 'activity'. The fact that they are incapable of 'other-observable' behaviour obviously does not entail that they are incapable of all forms of activity. A paralysed person, for example, may still be able to attend to this or that aspect of his or her experience—such as a particular sound or sensation—while still being unable to move the relevant sensory organs. However, the passivity of Strawson's creatures is emphasized when he states that they are not capable of even mental action, such as mental arithmetic or the performing of thought experiments. This suggests that they find themselves in a situation where not only does their perceptual experience come to them unbidden and totally outwith their control, but even their thoughts come to them in a similar way. This leaves them lacking both bodily and mental action. Is the contrast with our own situation as substantial as it first appears?

I will spend some time considering what kinds of activity and passivity we can find in our own case in the following sections, but for the moment we can

note that we have at least some control over what we experience. Much has been made of the passive nature of perceptual experience, by philosophers from Berkeley to McDowell, but it is also widely recognized that we have a not insignificant degree of control in the matter as well.¹⁹ We can decide where to look, what to touch, whether to attend to a particular aspect of our experience or to turn our attention elsewhere, what properties of an object to focus on, and so on. We are constantly exploring our environment; we do not wait for things to come to us. The Weather Watchers, on the other hand, have no such capacity. They are at the complete mercy of their environment when it comes to the contents of their perceptual experience; they do not even have the means to shut off aspects of their experience (they cannot close their eyes or block up their ears). In the case of our mental lives, we seem to have an even greater degree of control than we do with perceptual experience. Occasionally we may find ourselves dwelling obsessively upon a particular thought (“How could I have been so stupid as to say that!”; “I can’t believe the house has burned down!”) but on the whole we do not find ourselves overwhelmed with uncontrollable thoughts. Nor do we find the content of our thought determined in part by an external source, as is the case with perceptual experience. In such experience the world partly determines the experiences that we have, whereas our thoughts are to a large extent under our own control, and any limitations upon what we can think are our limitations, not those imposed by some external body. In the case of the mental, we can inquire whether the difference between ourselves and the Weather Watchers is based upon the fact that our thoughts are within (and under) our control whereas those of the Weather Watchers are like the obsessive thoughts which on occasion come unbidden into our minds and which we cannot shake off.

According to Strawson this is not the distinction that we should find. He distinguishes:

M1 *voluntary mental action*, which involves a deliberate “act to generate material”²⁰ (i.e. a premeditated *intention*), e.g. mental addition, in which we

¹⁹ Cf. Berkeley (1975) and McDowell (1994b). See Gibson (1968), Merleau-Ponty (1962) and Stevenson (1995) for examples of the latter position.

²⁰ G. Strawson (1994), p. 253.

deliberately and purposefully attempt to call to mind a specific number (trying to remember a name would be another example of voluntary mental action, as would trying to formulate a plan for a thesis); and

M2 *all other mental occurrences*, including “nearly all of our thoughts”, which “even when they are appropriate to our situation and our needs as agents, action and intention usually have little or nothing to do with their occurrence”.²¹

Under this categorization, such disparate mental occurrences as letting one’s mind drift and thinking about a particular thing without deciding to do so beforehand will fail to count as mental acts. Given this, it is no wonder that Strawson claims that the Weather Watchers’ mental lives will be so close to our own. For, as Strawson remarks, very few of our own thoughts are active in the way that M1-type thoughts are. However, this characterization of mental action presents problems when compared to Strawson’s treatment of bodily (or physical) action, with which it is intended to provide a parallel. Initially, it seems that the key fact about the Weather Watchers’ behaviour is *not* merely that it is unaccompanied by some intention or deliberation, but rather that they exhibit no behaviour whatsoever—they are completely inactive (as can be seen from the earlier quotation). However, at a later point in the thought experiment (when considering what may cause us to ascribe any mental states to the Weather Watchers at all) Strawson alters this to allow that they may occasionally be subject to involuntary linguistic outbursts which describe the current weather—a sort of meteorological Tourette’s Syndrome, as it were. What is important here is that the occurrence is *involuntary*; it can be correctly described as something that happens to the subject rather than something that the subject does. Thus the distinction is not just between actions involving intentions and all other bodily movements, but also between active occurrences that are within the subject’s control and happenings which are not. This suggests that Strawson endorses the following distinctions for the case of physical behaviour:

²¹ *ibid.*, p. 253. Strawson appears to dispute Davidson’s claim that all actions are intentional under some description (Davidson (1980b)). The following discussion will not turn upon this issue; it is, rather, led by considerations in the phenomenology of action, not by any adherence to a particular account of action and intention.

- B1 *voluntary bodily action*, that is, intentional, premeditated, physical action on a par with M1 above;
- B2 *voluntary bodily activity*, standard physical activity which is in accord with our wants, desires and circumstances but which is not premeditated or accompanied by a conscious intention (or act of will), e.g. my answering a question in a certain specific way (“I’m not an admirer of Martin Amis” instead of “I don’t like Martin Amis”),²² or reaching across the desk in a particular way to pick up a pen, or even drumming one’s fingers;²³
- B3 *involuntary bodily movement*, such as in the non-standard case of a sufferer of Tourette’s Syndrome, where the subject has no control over the movement, or in more familiar cases such as a nervous twitch or a blink.

Setting aside for the moment the fact that the Weather Watchers as introduced are physiologically incapable of bodily action, if the M1–M2 distinction above was mirrored for the case of bodily activity—if Strawson was as generous to the Weather Watchers regarding bodily behaviour as he is concerning the mental—then there would seem to be little that the Weather Watchers could not do (as long as they do not deliberate about it first or consciously reflect upon it at the time).²⁴ After all, very few of our physical acts are actions under this characterization; most of our physical behaviour just happens in accordance with our very general desires, beliefs and mental state (‘mood’) rather than as the end result of a specific act of willing. I do not decide the exact manner in which I will pick up a pen in just the same way that I do not decide in advance precisely how to phrase a statement (as in Strawson’s example), nor do I decide to pace absent-mindedly. Despite this, these are still activities. Given this, if it was only B1 that the Weather Watchers were incapable of then there would seem to be little to stop them engaging in as much

²² The verbal response example is Strawson’s own but the specific case given is not (Galen Strawson may indeed like Martin Amis).

²³ If this is a category that Strawson recognizes, as it appears to be, then he would deny that such activity was accompanied by any intention whatsoever, not just a conscious intention.

²⁴ I will, however, argue below that we can only make sense of B2 activity in the case of a subject capable of B1-type intentional action. This is not to accommodate Davidson’s claim that all activity must be intentional under some description (cf. Davidson (1980b)) though; I will maintain that recognizing B2-type activity as a genuine class is essential if one is to correctly capture the facts (phenomenological and otherwise) about action. See §1.2.2 below for a more detailed discussion of such activity.

B2-type behaviour as they are physically capable of.²⁵ We could, of course, withhold the term ‘action’ from B2-type cases and reserve it for B1-type cases (as Strawson seems to),²⁶ but this should not blind us to the fact that the distinction between B1 + B2 on the one hand and B3 on the other is a crucial distinction both for the present thesis and for Strawson’s thought experiment. In both B1 and B2 but not B3 behaviour the subject can truly be described as active; these are things that the subject does, not things that happen to the subject, as in the B3 case. I might not deliberate about picking up a pen (I might not *intend* it in Strawson’s terms); nevertheless, it is something that I do, not something that happens to me, in the way a muscle spasm is.

For such reasons we might favour a similar distinction for the mental case. This would give us the revised distinctions:

M1r *voluntary mental action*, (as above);

M2r *voluntary mental activity*, which includes “nearly all of our thoughts” which are in accordance with our desires, beliefs, circumstances, etc., but which are not the result of, or accompanied by, an act of will (letting a tune run through one’s head would be one example); and

M3r *involuntary mental events/happenings*, such as might be found in the case of certain mental disorders, such as schizophrenia, or even in more common cases when one finds oneself dwelling on a thought that is not wanted (as might be caused by excessive worrying or stress, for example).

It should be added that not all M3r thoughts (and, somewhat less obviously, B3 behaviour) need be unpleasant. One can occasionally find amusing or pleasant thoughts coming to mind that are both unwilled and inappropriate to one’s present predicament, such as when one is suddenly struck with the absurdity of a situation which one is supposed to be dealing with in a serious manner. Such thoughts may not be pathological (as with Tourette’s Syndrome), but they are nevertheless outwith the subject’s control. It could be

²⁵ We should not attribute too much importance to Strawson’s assertion that the Weather Watchers are physiologically incapable of action. Our interest in the thought experiment turns upon the extent to which the creatures are passive, not any underlying empirical reasons for this passivity. The lack of intentions and other forms of control (see the following section) in their mental lives is what matters, not the lack of physical means.

said that the individual is the *passive* recipient of such thoughts. Again, we will look at this at greater length in the next sections.

As with the physical case, a crucial distinction comes between M1r + M2r on the one hand and M3r on the other. Just as in the bodily case, events of the third sort cannot be truly said to be under the control of the subject; in such a case, the subject is not *active* (such happenings could be described as ‘activity’ under one usage of the word—just as there can be volcanic activity, or unwanted activity within one’s digestive system—but this is a usage that would only cause confusion in the present context and serve to hide an important distinction). One reason why it is relates to an important difference between activity and passivity in the mental and in the physical, which we will consider below in the next section, along with just how we should treat B2 and M2r in terms of activity and passivity.

Returning to the Weather Watchers, as I stated earlier I want to alter the scenario to one that more correctly reflects the purpose of the present work. Undoubtedly, Galen Strawson would reject certain of the amendments made above, although there are grounds for claiming that he should accept others, notably those concerning the apparent ambiguity between mental and bodily activity, as I believe the above discussion goes some way to illustrating, but I will not press this claim further.

What I want to do now is turn to the issue of the nature of B2-type activity. Bodily activity, and the experience resulting from this, will play a central role in the remainder of the thesis. For this reason, it is important that we clarify how we should regard this form of non-premeditated activity. If these are not consciously intended actions (as B1-type events are), then how do they differ from B3- occurrences? Could all action be of this sort? There is room for a parallel discussion of M2r-type activity, but we will not go into this here. Much of the following can be taken to generalize to the M2r activity, but given that this will not play as significant a role in the later chapters we need not concern ourselves with it to the same extent.

²⁶ Cf. G. Strawson (1994), pp. 252-3.

§1.2.2 The primacy of consciously intended action over other forms of activity

Galen Strawson is correct in claiming that we can find instances of behaviour that, while not involuntary, cannot correctly be described as being consciously intentional. Strawson withholds the term ‘action’ and the term ‘intentional’ from such cases. I want to bring such behaviour under the heading while still distinguishing it from B1 action. While any dispute over this would in part be merely terminological, calling this behaviour ‘action’ serves to highlight certain important parallels with full-blooded planned action and also to emphasize the B1 + B2 against B3 distinction, which is of central importance. As noted above, he is also inclined to deny that such activity is intentional. Presumably, this is connected to the fact that such activity is neither planned in advance nor reflected upon during its performance.²⁷ In any event, the important point to note is that there does appear to be a form of behaviour that sits between pre-meditated, deliberate action and involuntary behaviour.

Of course, this claim is open to objection, but I will not consider any such lines here. If we approach the issue from the context of the phenomenology of action (in itself of central importance for the thesis), then within this context there is certainly a relevant distinction to be drawn. Calling B2-type behaviour ‘action’ captures our attitude towards it. That is, despite the fact that the subject would acknowledge that she did not plan or consciously choose to do it, what she was doing could correctly be described as something she did (was the author of), and thus something she was responsible for, as opposed to an involuntary movement of some sort such as a shudder. There was no conscious intention, act of will or volition, but there was an action—there was something that she did.

Nevertheless, I want in the present section to argue that we can only make sense of type B2 actions in cases where the subject is capable of the more substantial B1 variety. There is no bodily action without consciously planned bodily action. This will be of some importance later. It should also serve to partially defuse any worries about admitting a second category of action into our

²⁷ While I do not want to commit myself on this issue as nothing in the remainder of the thesis turns upon it, I will however indicate some points that might be made in Strawson’s favour. The issue is, after all, interesting for its own sake.

account. Non-consciously intentional actions are logically dependent upon deliberate actions, and thus we do not have the possibility of action where there is no possibility of conscious deliberation. Likewise, there is no B2/B3 distinction without the class of B1-type actions. We will return to this latter point below.

To recap, paradigm examples of human action are generally those in which the subject plans to perform a certain act and then proceeds to do so. I intend to catch the bus, and I do so. In such a case I do not simply find myself on the bus, like a discarded crisp packet blown aboard, nor do I jump aboard it impulsively. That I am on the bus is a result of my conscious intention. All human action cannot be represented in this way, though. We can find two broad types of action that do not fit this characterization, and yet which are not merely unintentional behaviour of the B3 variety. Strawson's example of generating replies in a conversation without first thinking "I am going to phrase my reply thus..." draws our attention towards one of the varieties.²⁸ In this class we find such things as tying one's shoelaces in a particular fashion, making just that wrist movement while signing one's name, and so on. Such actions are fairly characterized as unplanned; we do not intend to do precisely these actions as opposed to other, similar ones.²⁹ When one ties one's laces there is no premeditated plan to tie them in a particular fashion (unless one is learning how to do so). Indeed, the basic bodily actions that go to make up the tying of the laces need not even be present to consciousness.³⁰ When asked after the fact about the movements that I made while tying my laces I will not be able to give a step-by-step account of the motion of my fingers. Similarly, when performing the action, reflecting upon the movements themselves is a probable way of making a mess of things (consider a seasoned player swinging a golf club or a tennis racket to see this).

Such actions, while not consciously planned, do however clearly depend upon planned actions for their existence. The non-intentional acts of this class are actions which form parts of deliberate actions, and are thus dependent upon

²⁸ G. Strawson (1994), p. 253.

²⁹ For such a reason one might agree with Strawson that such actions are not intentional.

them.³¹ Strawson would argue that we should not say that this means that they are intentional after all. When signing my name I never had the intention to move my pen in just that way; that I did so resulted not only from the intentional action of which it formed a part but also the external, environmental influences upon just how I performed the action. Were I signing my name while being hustled in a crowded room I would have to modify my action as it took place to achieve the desired goal, and yet this would not be done consciously. Such external factors would be taken into account as a matter of course. For such reasons as this, it is an error to suggest that every bodily movement that comprises part of an intentional action is itself intentional.³² I did not plan to do it, it did not enter my consciousness as I did it, and I cannot recall it afterwards. The important point for us, though, is that the bodily movement is still an action for the sorts of reasons mentioned above.

The second sort of non-intentional action is more problematic, and a more interesting phenomenon. While the connection between deliberate intending and the above variety of B2-type behaviour is plain, the connection in the present case is far less obvious and open to stronger objection. The kind of behaviour that I have in mind is again best picked out by considering some examples.

Consider the following, all done unconsciously: scratching an itch; humming a tune; pacing; fidgeting; moving one's tongue around one's mouth. This group includes, but is not restricted to, forms of habitual behaviour (though for brevity in the following I will refer to it as such). How should we account for such varieties of behaviour? They are clearly not deliberate, nor are they always contrary to our wishes. In terms of the above schema concerning types of activity, there are four main options. They might be regarded as a form of intentional action (B1); or as on a par with the above B2 behaviour; or as a different variety of B2 activity; or as a form of involuntary (B3) movement. The first option does not merit any substantial attention. Clearly, the subject does not

³⁰ Other than under the description "I moved my body in just the way required to tie my shoelaces". Cf. Davidson (1980b), p. 51.

³¹ Or, more precisely, they are either parts of deliberate actions or parts of actions that fall under the remaining category.

³² Contra Davidson. See Davidson (1980b).

usually experience fidgeting or pacing to and fro as an intentional action. In fact, it is plausible to maintain that one could not intentionally fidget—it seems to be part of the meaning of the term that it is something that occurs or is done without thought. Just as there is a sense in which one cannot daydream intentionally (we would call this thinking, not daydreaming), so it appears that one cannot mean to fidget. If one means it, one is just moving one's fingers, not fidgeting. The other options all seem to be plausible candidates, though. Let us consider first whether we could treat such activity in the same way as we did the B2-type activity above.

Taking this approach would entail that these various activities each formed a part of a larger, intentional action. It might transpire that the difference between the present cases and those considered earlier just is that the latter are parts of simpler actions from those which the former partly compose. If this line is to be maintained that activities such as twiddling one's thumbs are parts of intentional actions. It is not clear what kinds of actions these might be—there appears no underlying goal or greater purpose to doodling, for example. Still, it might be argued that the picture is more complex than it first appears. It could, for example, turn out that, as an empirical fact, doodling when it occurs always accompanies certain thought processes. Doodling, in other words, could be a manifestation of certain abstract thought patterns. At the very least, this seems like something that psychologists could discover—it might not be clear to the subject, but it could still be a fact. If the profound thought is intentional, then the doodling is intentional. Of course the two could in principle come apart, but so could the occurrence of certain finger movements and the tying of shoelaces. Alternatively, one could hold that doodling is part of an intentional action aimed at more general goal, such as living a pleasurable life, or being relaxed, or whatever.

Neither of these seem very plausible. To claim that fidgeting and doodling and the rest are aimed at the good life is just disingenuous; if we admit that, then there is little or nothing that will not count as part of a robust,

deliberate action.³³ The concept of action would be stretched to breaking point by such a move. The same criticism could also be made of the idea that such behaviour might be part of a conscious, intentional action in virtue of the fact that it always accompanies certain conscious actions. If this were so, then any contingent feature of action will become part of the action itself—hair bristling on the nape of the neck when one has a scary thought, eyebrows raising in accompaniment to an interesting thought, and so on. If these count as part of an action, anything will.³⁴

There is another fundamental problem with the current suggestion, and that it is that it misrepresents the subject's experience of action. We simply do not recognize fidgeting as goal-oriented or pre-meditated in any way whatsoever. There is a strong and important phenomenological difference between habitual or unconscious behaviour like drumming one's fingers and planned activity. Inasmuch as we are concerned with the *experience* of action, any move along these lines can be immediately rejected. This, of course, is not to say that habitual behaviour and the like is not non-intentional, voluntary activity: it is only to say that it is not of the same variety as the above.

If we rule out the above two options, the remaining alternatives are that we could either treat the relevant sort of activity as B3-type bodily occurrences of a particular sort, possibly those that are not troublesome, or as a kind of B2 activity distinct from that above. I will argue that we should treat them in the latter way; first, however, we will look briefly at the former option.

The examples that we have been using of B3-type activity are generally in some way troublesome for the individual concerned. The linguistic outbursts associated with Tourette's Syndrome provide a good example. Here the subject not only does not intend to utter potentially offensive remarks but positively desires not to; nevertheless, he does. Involuntary muscle spasms are likewise unintended and outwith the control of the subject. Stuttering, compulsive

³³ And then on Davidson's account they would then be intentional acts themselves.

³⁴ This suggests that Davidson's claim that all activity is intentional under some description must be incorrect. Of course, one might wish to reject the claim that habitual behaviour is action, but I hope that I have suggested some reasons why such an approach is to be rejected.

scratching and nervous tics provide further examples of behaviour of this kind. Now, all of these forms of bodily behaviour are unpleasant or unwelcome in some way. The present hypothesis is that we could treat other bodily activity such as pacing back and forth or fidgeting as being of a kind with such B3 behaviour. The difference would be that the agreed cases of B3-type behaviour are unwelcome to the subject; the cases currently under consideration are not. They are either found to be pleasant in some way or the subject has a neutral attitude towards them.

It is certainly true that their could be involuntary behaviour which could provide the subject with some enjoyment. The fact that we are creatures who generally like to be able to control our lives and experiences in part accounts for why B3-type behaviour is usually undesired and unwelcome, but this does not rule out the existence of such pleasurable experience. Some sexual stimulation may be of this nature, and the occasional outburst of unwarranted laughter (or a 'fit of the giggles') can also be stress-relieving and pleasant. So there certainly is a space into which habitual or unconscious behaviour might be slotted. Still, I think to take this line would be an error.

The reason for this is that there seems to be a genuine distinction to be drawn between habitual behaviour, fidgeting, etc., and pleasant though involuntary behaviour. One of the distinguishing features of B3-type behaviour is that it is outwith the control of the subject; it comes to her as something unsought. But it must be more than just this—all B2 activity comes to the subject in this way as well. The crucial distinction is, rather, that B3-type behaviour is outwith the sphere in which we can exercise some control; it is not just that we do not start it, but that we also cannot stop it. This is precisely what makes compulsive behaviour compulsive. The Tourette's sufferer cannot prevent an outburst by biting his tongue—it is not that he has the urge to shout offensive remarks but can curtail this urge should he choose to do so (this would be an example of undesired mental urge rather than undesired behaviour); instead, he is unable to contain the outbursts. It is truly involuntary *behaviour*. Likewise, muscle spasm is not muscle spasm if it can be controlled at the instant that it starts.

The key distinction here between B3-type involuntary behaviour and the sort of behaviour of which we are presently trying to account for is that the former comes to the subject as something completely distinct from that which he can control. That is why B3-type events are a cause for concern, why they are regarded as symptoms of mental or physical illness. Habitual and unconscious behaviour and the like is simply not of this ilk. One may not consciously initiate it, but one does acknowledge it as one's own, accept responsibility for it and, crucially, exercise control over it. When I notice that I am drumming my fingers I can consciously choose to stop it; if I cannot, *then* it is involuntary behaviour. Standardly, however, we can stop any episode of such behaviour at a whim. This is what I mean by the claim that, unlike involuntary happenings, such behaviour is within one's sphere of control. It is also a feature which it shares with the other variety of B2 activity.

Earlier, I claimed that B1-type intentional action was primary. This is clearly true for the first variety of B2 behaviour, but is not so obvious in the present case. Nevertheless, it still holds true. What demonstrates this is the place of control in the characterization of the phenomena. Habitual activity is distinguished from involuntary behaviour by the extent of the subject's control; were such control not available, no distinction could be made. Intending comes in with this control. What is important is that the subject can *choose* to exercise control—she can *intend* that the behaviour stop, and bring this about. This bringing a halt to the behaviour is an act in the strongest sense, a B1-type action; it is an exercise of the will if anything is.³⁵

The conclusion that we should draw at this point is that if a subject is to be capable of any behaviour that is at all voluntary, she must be capable of full-blooded deliberate action. This is the primary mode of activity; the majority of our activity (as Galen Strawson claims) may not be of this variety, but without it,

³⁵ Interestingly, it has recently been proposed that the will is most correctly seen in action in the halting of arising non-intentional behaviour. The work of Benjamin Libet on the neurophysiology of action has been taken to demonstrate this by both Libet and E. J. Lowe. When read in this way Libet's work suggests that the immediate neurophysiological antecedents of bodily action actually arise around a third of a second before the subject is aware of making a choice. However, even then the subject has the ability to 'veto' the action before its occurrence. This veto, then, might be

there would be no activity. In its absence the first variety of B2 activity would be unavailable—it is precisely a part of intentional action—and the second sort would collapse into B3-variety involuntary bodily happenings. Similarly, without the contrast with activity of any sort, involuntary behaviour stops being (potentially) pathological; instead, it deteriorates into mere mechanical motion of a particularly useless variety.

We will leave the Weather Watchers aside for the following section, and turn to just what sorts of thing might constitute activity. We will approach the issue via the different ways in which the subject experiences herself as being active; we are not concerned with issues such as whether an action involves a volition, or whether there is a distinct sort of agent causation, and such the like. I will also have something to say about Galen Strawson's treatment of the mental, and about how mental activity differs from instances of physical or bodily activity. As will be argued at a later stage, it is bodily activity that is of primary importance for the present thesis.³⁶ Nevertheless, a slightly fuller (if still limited) treatment of mental activity will serve to clarify the related notions of *control* and *constraint*, as well as to give a more thorough account of the phenomenology of active experience, this being of central importance to the later arguments employed. Once we have considered such issues we can return to the Weather Watchers and arrive at a clear version of their situation which, while not Strawson's own, will provide a suitable case study for my main claim.

§1.3 Activity & passivity in experience

As discussed in the Introduction, much of the later argumentation will proceed in terms of the experience available to the subject. Whether one is able to employ certain kinds of concepts is often partly determined by the experience that one can have.³⁷ For example, the sense-modalities that a subject possesses

regarded as the purest form of volitional or intentional action. See Libet (1999) and Lowe (2000), pp. 253-4.

³⁶ Cf. Chapters Three and Four.

³⁷ See, for example, P. F. Strawson's 'auditory world' thought experiment in P. F. Strawson (1959) Ch. 2, and Evans' critique of this in Evans (1980).

will both enable her to possess certain concepts while not allowing her access to others. One cannot grasp the concept of a loud noise or an unpleasant stink if one is deaf and unable to smell anything. This is equally true in the case of spatial concepts, I will claim, and is certainly true with the concept of action.

There are a number of reasons for this, and these will be explored more fully in the remainder of the chapter. For the moment, though, let us note the following points. Except in the case of certain mental acts, one must have appropriate experience in order for one to gauge whether an action has been successfully carried out or not. One cannot evaluate one's performance in the absence of any perceptual feedback. A football player cannot tell whether he has scored a goal unless he can see the ball in the net, hear the referee's whistle or the roar of the crowd, or feel the ball against the net with his hands. He might know that he had an intention to score a goal and that he made some attempt to do so (even if it was a purely minimal attempt, such as having the volition); but without experience he can have no way of knowing whether the action was even performed (that the ball was even kicked).

The experience of one's own action is also unlike any other sort of experience. At the very basic level, moving one's hand feels different from cases in which one's hand is moved either by another party or an involuntary spasm. The experience of bodily action is unlike the experience of any other form of change in one's physical environment. One is aware that certain changes in that which one experiences—one's present visual and kinaesthetic experience of one's location and motion, the shifting of the attention to focus upon auditory experience at the expense of the experience from the other modalities, and so on—are brought about by oneself, rather than by external changes in one's environment. This is equally true with mental activity. Having compulsive thoughts about something (M3r-type thoughts) feels different to the subject from having ordinary thoughts of either the M1r or M2r variety. Such experience of one's activity, be it mental or physical, is fundamentally phenomenologically different from the experience of changes brought about external factors—the bus in which one is a passenger turning a corner, the sun setting, the train in the

station moving away—in which cases one experiences oneself as passive. These external factors are outwith one's control or sphere of influence.

It is not merely the fact that one is able to act in certain ways that is relevant to one's abilities to employ certain concepts; it is the fact that one experiences oneself to be active. I will argue in the following chapters that it is the fact that one experiences oneself as being physically active in one's environment—as bringing about change in this environment—that allows one to employ spatial concepts. For this reason, I want to introduce the concepts of *active experience* and *passive experience*. Active experience is just the experience one has of one's own activity; passive experience is the experience one has when one has not brought about the relevant change (in one's thoughts, location, experience, etc.). Whether or not one holds oneself to be active in any instance is not an issue that arises after the episode of experience. It is already implicit in the experience itself. In particular, an experience that comes about through one's activity is already imbued with the awareness of this activity; one is aware of one's activity simultaneous to (or even prior to) the occurrence of the experience. The experience itself is already shaped by this awareness.

Something similar is also presumably true in the case of creatures lacking conceptual abilities; animals and young children can successfully manoeuvre through the world and initiate interactions with other objects, animals, etc. Inasmuch as we hold young children to be capable of even rudimentary activity, then this will be true. It is the fact that the subject initiates the activity that makes this so, not whether the subject can conceptualize the experience in such a way. A dog can distinguish changes it brought about from changes caused by something other than itself. If it could not then it would be unable to act at all.

We therefore have to treat the active experience–passive experience distinction as cutting across the conceptual–nonconceptual distinction. There is something of a parallel here with the way we regard the different forms of experience available to the subject in virtue of the different sense-modalities it possesses. A creature with a functioning pair of eyes and a suitably complex brain will be able to have visual experience irrespective of whether it can apply

concepts within its experience or not.³⁸ Its employment of concepts or otherwise is a separate question. Of course, the active–passive distinction will also intersect the various distinctions between the sense-modalities; we can have active or passive auditory experience, active or passive olfactory experience, and so on. The extent to which there is room for some difference in the degree of the active content of any experience will turn upon certain empirical facts concerning the constitution of the subject and its sense-modalities. Dogs, for example, will be able to control their sense of smell to a greater degree than we can; we will be able to exercise some control over the contents of our visual experience to a greater extent than bats can, and so on. A partially paralysed subject will be unable to control his tactual experience to the same extent as a standardly enabled adult can.

It is worth repeating the point that this distinction is intended to reflect certain features of the phenomenology of experience. In this sense, one's awareness of one's activity forms part of the content of an episode of experience, and this content must also be accessible to non-concept using beings. How this is done is an issue for the various accounts of nonconceptual content on offer.³⁹ This should not overly trouble us; the claim that is being made here is a phenomenological one, and thus does not turn upon the acceptance of any particular theory of content. The various theories should, however, be able to capture the phenomenological facts of experience.

We should note in this context that the claim is not that one uncovers one's activity from one's experience in the way one might discover the success or otherwise of an attempt at performing a particular action through one's experience (seeing the ball entering the back of the net, for example). On the contrary, it seems that one's awareness of one's attempt can even precede the having of the experience; one knew what one was trying to do before the attempt was made, or at least while one was performing the action (if the goal resulted from a penalty then one had a prior awareness of the action; if it was a result of

³⁸ There may well be other criteria we apply in deciding whether the creature truly has experience or not. This is somewhat beside the present point.

³⁹ Which theory should be preferred is, however, outwith the scope of this dissertation.

an unplanned volley then one knew at the time). Nevertheless, the awareness of the activity still forms part of the content of the experience, if an irreducible one.⁴⁰

None of this should be taken as suggesting that one cannot be mistaken about whether or not one truly acted. It seems that there is room for the experience as of acting in the absence of such action. The phenomenological content of the experience and the fact of the matter concerning the actual causes of the perceived changes can come apart. One can believe that one initiated a particular change when one did not, and this is true even with basic actions, as we will see.⁴¹ This is compatible with the claim that one may not be able to be mistaken about whether one tried to perform the action in some minimal sense (whether one had a volition, for example), of course, but at present we are interested in a more substantial connection between activity and experience. The concept of active experience has to accommodate this fact about the possibility of error if it is to truly capture the ways in which we experience our activity. For this reason we have to treat active experience as the possibly illusory experience of one's own activity.

As this suggests, there is a genuine issue about the connections that hold between the experience of action and the activity itself, in that there appears room for a sceptical challenge concerning the possibility of the two coming apart, of there being active experience without action. If this is the case, and one can have active experience without actually being active, then it might seem as if a purely passive creature such as a Weather Watcher could have such experience. Inasmuch as this appears possible, it presents a threat to the main aim of the thesis, to demonstrate that action is necessary for spatial perception. This will be the topic of a later section of the present chapter.⁴²

⁴⁰ 'Irreducible' in that it cannot be reduced to any other feature of the experience, as this would not explain one's prior awareness.

⁴¹ Cf. §1.4 ff. There are limits to what is possible in such a context, as will also be discussed in this section.

⁴² §1.4 ff.

§1.3.1 Control & constraint

Returning, then, to the matter of activity and passivity, one thing that was not discussed above was that on the whole no episode of thought or experience will be completely active or passive. We generally have at least a modicum of control over what we experience and what we think, and this control is most often constrained by any number of other factors. I want to use the term *control* to indicate the ways in which we experience ourselves as able to influence the contents of our experiences and thoughts—such forms of control will encompass such diverse things as the ability to move our bodies, to focus our thoughts, to recall a name from memory, to mention but a few. It should be added that I am not making a claim about any further similarities between these disparate forms of control, e.g. about their source, or about the ways in which we should treat them in another context; I am only claiming they all do seem to allow the subject in question to influence the course of his or her experience or thought.

Some instances with which we might be familiar that involve the presence or absence of various forms of control are as follows:

- talking silently to oneself;
- mental counting;
- mental arithmetic;
- recalling a face from memory;
- focusing upon a particular feature of a remembered face;
- thinking of a colour;
- planning to do such-and-such a thing the following day;
- reflecting upon whether something is the case;
- looking at something;
- attending to a particular aspect of some object;
- paying attention to something in the periphery of one's visual field;
- trying to distinguish detail in something (e.g. in the distance);
- straining to hear something;
- opening one's eyes;
- stretching one's arms;
- watching something, or following it with the eyes;
- picking up and inspecting something;
- using something;
- instinctively removing one's hand from a hot stove.

Although we have a variety of different activities here, it is not the case that they all involve different forms of control. The only crucial difference, for

example, between straining to hear something and trying to distinguish detail in something (trying to make out what it is that we can see on the horizon, for instance, or somebody trying to learn the Braille alphabet), relates to the different form of sensory intake being focused upon, and this is not enough to warrant different treatment in this discussion. One initially obvious fact about this list is that some of the activities mentioned are of a purely mental nature, while others relate to physical activity, usually combined with a degree of mental activity (there is a rough progression from the purely mental to the purely physical in the list).

To start with some related examples from the above list, it would seem that there is a distinction to be made between day-dreaming and mental arithmetic that is not applicable to the difference between day-dreaming and mental counting (counting from 1 to 100 silently to oneself, for instance). Is this intuition correct? There are strong similarities that exist between cases of day-dreaming and cases of mental counting when they are considered in terms of activity and passivity. In both we find little or no effort involved—there is no constraint placed upon the operation of the will (at least, this is so when we have mastered the ability to count and are dealing with numbers of a reasonably short length), in that in the case of the former we are not impeded from imagining changes in some scenario or other, and similarly with the latter we are not impeded from continuing to the next number in the sequence.⁴³ Also, in both cases the control is of a crucially *mental* form; we do not seek to control our sense organs in either case, as we do when we count the books on a shelf, for instance. In fact, it would appear that these cases might well have more in common than mental counting does with mental arithmetic, at least in the terms of the current discussion. They do, of course, differ with regard to the conceptual resources that each brings to play, and the different kinds of rules that hold for the employment of these concepts. Day-dreaming tends to involve empirical concepts, more precisely concepts relating to an external world, whereas mental

⁴³ One should not confuse day-dreaming with other forms of imagining, in that cases in which we are told to e.g. “imagine a disembodied ego operating a physical body” will undoubtedly be cases where we will find constraints, and where our imagination will not have free reign. Day-dreaming

counting employs neither. The difference between these and mental arithmetic is that we are more likely to find ourselves facing some difficulty when trying to do mental arithmetic than in either of the other two cases. This is to claim that when doing mental arithmetic we are more likely to find ourselves constrained, the operation of the will impeded, than when day-dreaming or counting silently to oneself. Why this might be so will be touched upon below when we return to the case of mental action.

For the moment, however, let us just note the fact that in some (or even most) of the above cases we are limited in terms of the amount of freedom that we have in controlling the course of our experiences. We will look at this central feature of these sample experiences, which concerns the limits or constraints upon our control, after considering the phenomenon of control itself.

§1.3.2 Control

Turning to control then, how is the ability to embark upon a flight of fancy related to the ability to do mental arithmetic? Or the ability to remember a face related to the ability to recognize the same face again? Which forms of activity are generally constrained, and by what? It might be the case that we wish to distinguish the ability to control our own (physical) sense organs from the ability to manipulate objects. Both are crucially physical, we might claim, but the first is more immediate, and subject to different forms of constraint from the latter. In order to clarify these issues, I want to distinguish three different categories which should encompass at least the most important forms of control. They are as follows:

1. mental non-experiential control. When we think—about what to do tomorrow, about what the unit of currency is in the Netherlands, about what the square root of 324 is—we are not normally engaging in an activity the point of which is to alter the course of our present experience. There may, of course, be exceptions: one may be partaking in an experiment to test for the existence of parapsychological phenomena, such as telekinesis, or one may be trying to keep one's attention from an unpleasant aspect of experience (as

is of a crucially different sort from such instances in that when day-dreaming we do not consciously have to try to imagine something; instead, we just do.

discussed under 2. below), or whatever. These are not, however, standard cases. Mental arithmetic provides us with a rather more familiar example of an episode of thought. In such a case we seem to be faced with a form of activity that is under the (near) complete control of the subject, but which does not alter the subject's present perceptual experiences (the subject may as a result of the activity become less aware of his or her present perceptual experience but this is standardly a by-product of the activity, not the goal of it). Much—or even most—thought will fall into this category, although the level of constraint present may differ radically (more on this in a moment).

2. *mental experiential control*. As with 1 above, this category concerns purely mental activity. The important difference is that here we are concerned with mental activity that has direct consequences for a subject's course of experience. While instances of this may be less common than was the case with the preceding category, we should all be familiar with some. Take the following scenario. You are undergoing an eye test with an optician who is checking for 20-20 vision. You are told to sit and look straight ahead at the dot on the wall, and say when you can see the optician's hand entering the periphery of your visual field. Now, despite the fact that you are fixating on the dot, you are voluntarily attending to the edge of the visual field. This is an example of mental experiential control. You are not physically moving at all—your activity is purely mental—yet you are engaging with your perceptual experiences in order to control them to a certain (albeit small) degree. Attending to anything else other than a toothache is another example of such control (and one whose usefulness should not be underestimated, as anyone who has ever suffered from toothache will know).⁴⁴ Listening to one voice amidst the noise of a party provides another example.

3. *non-mental experiential control*. This category covers all the other ways that we have of affecting our own experience, such as manipulating things with our hands, closing our eyes or even taking hallucinogenic drugs. Of course, one's primary purpose when employing such a form of control standardly will not be

⁴⁴ This example points to interesting cases where a form of control that would standardly count as mental non-experiential may actually be of the present type. Consider the case of someone trying to remember the titles of all his favourite Beatles' songs in order to distract him from the fact that he is feeling sea-sick.

‘to alter the flow of one’s experiences’; rather, it will be to pick something up in order to use it, or to protect one’s eyes from the blowing sand, or whatever. The outcome of these actions are all experienceable, though; one feels and sees the object in one’s hand, one sees one’s hand in front of one’s face and feels the sting of the sand particles hitting it, and so on. Such actions may even on occasion be employed with the intention of altering one’s experience (a sculptor may feel a piece of stone just for the qualitative or aesthetic experience of it, for example, and a person swallowing a pain-killer is also attempting to influence her own experience, as is a bungee jumper). (There is also a general progression from instances of 1. to instances of 3. in the above list.)

Given the pair of distinctions employed here (mental / non-mental, experiential / non-experiential) we might expect a fourth category, namely non-mental, non-experiential control.

		<u>experiential</u>	
		yes	no
<u>mental</u>	yes	2	1
	no	3	?

FIG. 1.1

However, it is not at all clear what might fall into such a category. This category would have to cover bodily actions which did not, and were not intended to, alter the subject’s course of experience in any way whatsoever, and there are no obvious instances of such actions. Our initial inability to come up with any decent candidates to fill such a role serves to highlight the intimate connections that exist between action or behaviour on the one hand and experience on the other.⁴⁵ It might at first seem that there are various pathological conditions which might provide suitable candidates; consider, for example, the case of a subject who has lost all kinaesthetic, proprioceptive and

⁴⁵ This fact might be taken to provide support for the change in emphasis (from action to experience of action) made at the start of this section.

tactile sensation, but can still move his limbs and perform actions. Would such actions fit into such a category? On the whole I do not think that they would. Most familiar, bodily actions performed by such a subject—opening a door, picking up a glass of water—will be experienceable in some manner, e.g. by looking at the door or the glass, or tasting the water. Given that such actions are functional—they are performed with the intention of achieving some outcome, or bringing about some state of affairs—such actions will in fact be experienced in some way, as the subject will standardly require feedback as to whether or not the action has been performed successfully (otherwise it will have to be done again or modified). In our case this comes through tactile, proprioceptive and kinaesthetic experience (one feels the door opening, or the glass in one's hand), whereas in the subject's case it must come through another, properly functioning, sense modality, or even via a third party (the doctor checking to see how the patient's movements match his stated intentions). The important point to note, however, is that such actions are in some way experienceable, even if only indirectly.

This is not to say that we cannot find anything that might serve as an example of non-mental, non-experiential behaviour by such a subject though. Imagine such a person in a room on his own, with no monitoring or recording equipment nearby, with his eyes closed, attempting to wave one arm in the air (and succeeding). He has no way of ever finding out whether or not he achieved his goal given his lack of kinaesthetic experience (neither does anybody else), yet he does it anyway. Just how should we regard such a case? It is undoubtedly non-standard, to say the very least, and I take it to be clear from the preceding discussion that it could never become the standard. Not only is such behaviour not amenable to long-term survival but, lacking as it does any substantial goal, it seems to be barely describable as action, precisely because it does not seem to bring about anything that is observable or verifiable by the subject. It would appear that Brian O'Shaughnessy has something like this point in mind when he states that "physical action ... [is] little more than a mass of movements like those of a tree in the breeze in the absence of ... [the] senses".⁴⁶ I think that it is safe to

⁴⁶ O'Shaughnessy (1980), vol. 2, p. 7.

say that while we can acknowledge the possibility of non-mental, non-experiential behaviour in marginal cases we can get along without employing such a category for the present.

Another point to note at this juncture is that on the whole all mental behaviour will be irrelevant to the present thesis—excepting, of course, the important fact that we are seeking to uncover some preconditions for a certain type of mental, (occasionally) non-experiential activity, namely spatial thought. In later chapters I will attempt to show that a subject must have experience of her own agency—her ability to physically act within her environment—if she is to possess spatial concepts. In other words, without the experience of bodily activity of a certain sort even mental activity which affects the subject’s course of experience will not suffice for spatial thought. Towards this end, in this chapter’s final section I will suggest just how we should read the story of the Weather Watchers if it is to provide a putative counterexample to the thesis.

§1.3.3 Constraint

Returning to the point made earlier, it is plain that we cannot—and indeed do not—have complete control over the contents of our experiences, or even our thought. There are many episodes of experience, and many more aspects of experiences, that occur regardless of our wishes, and some that we would not wish to have and certainly would not choose for ourselves. The totality of our experience is not, to use McDowell’s phrase, “a frictionless spinning in the void”,⁴⁷ with no outside elements to regulate our experiences. We need to capture the essential feature of any elements within experience that might play such a role; that is, that might restrict or frustrate our attempts to act in ways that will alter the contents of our experiences. On occasion we may find ourselves having thoughts that we would rather not have, or unable to perform some mental act, even a simple one such as remembering a friend’s name. We will also have to consider those features which limit or frustrate our mental abilities in such a way. For such reasons, we must also consider *constraints* upon the control of experience and thought by the subject. As might be expected, this notion is intended to be very general, in order that it may cover a variety of crucially

different factors that enter into, and partially direct, the flow of our experience or limit the scope of our thought. It is worth noting at this point that we are not postulating one common element in all constraints that might be thought to be the cause or originator of the constraint, as the will might be thought to be in the case of control. It need not even be the case that all thoughts and experiences have any constraints in common; nor even that all thoughts and experiences need have constraints at all. In fact, the first two or three cases from the above list might be held to involve no constraint whatsoever; we will look at one of these examples shortly.

As with the phenomenon of control we can consider several putative kinds of constraint. As we might expect, these are generally given what we might call ‘negative’ descriptions. Instead of discussing abilities, what we are able to do, we need to consider what we are *unable* to do. We might be:

- unable to imagine something;
- unable to remember something (a face, a fact, etc.);
- unable to control or to focus one's attention, for whatever reason;
- unable to recognize something;
- unable to direct our senses towards, or away from, something (a horrific accident, a riveting film, for example);
- deaf;
- blind;
- unable to move some object (other than oneself);
- unable to move oneself.

Less obvious factors within experience will also count as constraints as well. The fact that, as McDowell puts it,

one's control over what happens in experience has limits: one can decide where to place oneself, at what pitch to tune one's attention, and so forth, but it is not up to one what, having done all that, one will experience⁴⁸ highlights a familiar sort of constraint—and a particularly important sort at that—that is not naturally characterized in terms of inability or constraints. At best we could describe it as the inability to control what is presently located at a

⁴⁷ McDowell (1994b), p. 18.

particular point in nearby physical space (to control what is ‘out there’), or the inability to control what experience is had in a particular situation, and this does not quite seem to capture the notion. Nevertheless it is a constraint as we understand the term here. Given the diversity of ways in which our attempts to control the content of our experience can be frustrated, it is going to be the case that the term ‘constraint’ will appear more suitable for some of the above than others. This is unfortunate, but only to be expected given the variety of phenomena with which we are faced.

We may, however, be able to bring the different forms of constraint under a more rigorous system of categorization by drawing further distinctions, where appropriate, between the different varieties. Some initial suggestions might be that some of the constraints originate within us (e.g. the occasional unreliability of memory), and some from outwith us (being physically made to look at, hear or feel something); some place limitations upon our control ‘at the source’, as it were (e.g. the limitations of the imagination), whereas in contrast others actively determine what we experience (somebody playing a trumpet badly in our immediate vicinity). This second case highlights the point made above concerning why we might not consider the term ‘constraint’ to be quite as suitable for cases such as the latter as for ones more similar to the former: namely that our *attempts* to control our experiences are not frustrated; rather, the experiences are simply caused by something else (we may of course, as a result of the experience, try to influence our later experiences. We might remove either ourselves, or the trumpet, to another room, for instance). Nevertheless, such factors fall under the general category.

Do all of the cases mentioned in the first list above involve constraint, or the possibility of constraint? Focusing on the cases considered briefly earlier—mental counting, mental arithmetic and talking silently to oneself—it has been claimed that mental arithmetic does; that this is so should be plain from the fact that we often struggle to work out an answer to a problem, and often simply cannot do so when the numbers involved are too large. While we can perform

⁴⁸ McDowell (1994b), p. 10, fn. 8

some calculations without any trouble, the possibility of error is always present. We are simply not infallible in this area; otherwise, the pocket calculator would be redundant. Regarding counting silently to oneself, it might initially appear that there are no possible constraints, no possible frustrations of the will. However, if we again focus upon cases involving large numbers, say in the region of the millions, or in a foreign language, then simply counting no longer remains quite as simple. A far greater ability to focus the memory is required, and we will no doubt often stumble and hesitate. In other words, our control will no longer be unchallenged, and undisputed—we will face constraints, just as we would when trying to remember a face, or the name of a book, or a quotation. We would no longer feel quite as infallible as we did when counting from 1 to 100.

Day-dreaming, on the other hand, does not seem to be vulnerable to constraints in such a way. Talk of a frustrated, or failed, day-dream seems misguided and inappropriate; we do not seem to be dealing with a phenomenon that allows of such resistance, in the way that mental arithmetic and mental counting seem to. Interestingly, this is not so for all cases of imagining. We can attempt, and fail, to imagine things such as ‘the nearest possible world in which Napoleon won at Waterloo’, or the Cheshire Cat’s grin (sans Cat, that is). One possible explanation of this might be that day-dreaming is not goal-orientated while the others are, and this is where the possibility of constraint comes in. Yet this does not seem to quite fully capture the difference. We can, after all, *attempt* to embark on a ‘flight of fancy’, and find ourselves unable to get off the ground (just in the same way that we are often unable to relax or fall asleep at will). It might also be the case that day-dreams are goal-orientated under some description—imagine day-dreaming that the department agreed to pass all of your teaching work on to someone else, while at the same time raising your pay—this could possibly be described as involving a goal (even if a rather unrealistic one).

It seems that, in the case of day-dreams, we are not in control at all. There is a ‘switching-off’, a suggestion of ‘being somewhere else’, as it were. We might even ask whether there is actually any control involved in the case of day-dreams at all, or any conscious control, at least. Day-dreams, it might even

be claimed, originate at some deeper level than that of the subject's ability to control his or her experience ('the will', if the term is preferred), and because of this require different treatment, possibly along with other dreams. Even though we might initiate a day-dream—by lying on the floor and letting one's mind relax, or whatever—we may not actively engage with it after this point, at one level at least (this is precisely the difference between it and imagining a story or chain of events).

If the phenomenon of day-dreaming appears problematic, we will have to look elsewhere for a suitable example. Cases of bodily or physical control will obviously not do: although we may find plenty of actual instances that involve no constraint (opening one's eyes, picking up that pen, etc.) all such cases will involve the possibility of constraint (our eyelids could be tender and painful after an operation, our arms stiff or numb). At the very least, all such physical activity will involve the constraint that is imposed on all such experience by the external world. If we want a sample of an experience that involves only control, with no constraint present, or even potentially available, we will have to look in the mental arena. Are there any such cases? In a different but closely related context, Brian O'Shaughnessy discusses the example of talking silently to oneself.⁴⁹ Here, it seems, we do have an instance of pure control. In cases of 'silent talking' we find ourselves engaged in a purely mental activity, "silent quasi-talking", as O'Shaughnessy terms it, in which may, for instance, 'quasi-vocalize' our thoughts to ourselves, or run through a conversation that we expect to have with another, or simply 'talk' to ourselves, albeit silently. This is, as O'Shaughnessy states, "a perfectly real mental or internal activity [which] is quasi- the public or bodily activity of vocalising".⁵⁰

Why might we wish to claim that no constraint is involved in such a phenomenon? Consider actual speech. We find constraints there, in that we may stutter, or lose our voice, and so on. There are no immediately obvious forms of constraint, however, that would also be applicable to silent talking—no way in which we could attempt *but fail* to talk silently. "[T]he entire point of the

⁴⁹ See O'Shaughnessy (1992), pp. 236-7.

⁵⁰ *ibid.*, p. 237.

exercise is to bring a string of words before the mind ... [which] is accomplished from the beginning”, to quote O’Shaughnessy.⁵¹ It might appear that we could be frustrated, that a constraint could be possible in the case where we cannot remember a word, or a phrase. Such a thought would, however, be misguided in that this is to confuse the silent talking with what the silent talking is of. The ‘speech’ is simply a quasi-vocalization of our thought, in which case it would consist in such instances of vocalizations of attempts to recall a word or a phrase (“Now, what is that word that means ...”, etc.).

O’Shaughnessy concludes from his discussion of silent talking that it is a “sheer doing”,⁵² an “active producing of nothing. It is ... Will through and through”.⁵³ We need not concern ourselves with the ontology of the phenomenon, only with our experience of it, and here we find experience that involves no constraints, but only control. It would seem that experiences of silently talking to oneself provide precisely the kind of experience in which our control is at its utmost, and in which constraint is not even possible.

§1.3.4 Mental activity

With the notion of *constraint* now in place we can consider the different types of activity in terms of the above classifications. I want to limit the discussion to examples of two forms of activity, namely (a) mental and (b) experiential (or perceptual). Despite the fact that we had three categories above—1. mental non-experiential; 2. mental experiential, and 3. non-mental experiential—we need only look at these two, as they encompass all three categories: 1. falls under (a); 2. under (a) + (b); 3. under (b).⁵⁴ The matter of how we should view B3- and M3r-type activity will be returned to in the light of the following. We will look at mental activity first.

It might seem from the above discussion that mental control is merely control of our conceptual capacities, and that mental forms of constraint are similarly located within the conceptual realm. Silently talking to oneself,

⁵¹ *ibid.*, p. 237.

⁵² *ibid.*, p. 236.

⁵³ *ibid.*, p. 237.

⁵⁴ See fig. 1.1 above.

imagining something, mental arithmetic and mental counting all involve actively employing our conceptual abilities for instance. The concepts employed and the rules for employing them may differ in each case, but this is beside the present point: they all involve active concept manipulation. To assume that this is all there is to mental forms of control, however, would be to overlook the role of mental control in a number of other forms of experience, such as the experience of remembering. When asked to remember a particular person, we may try to remember a face, or an identifying fact about the person, or a combination thereof. It would be misleading to describe these as all amounting to the same form of control, namely control of our conceptual abilities, even if this is relevant to all of the cases (as it might well be). It appears that we may have complete control of our conceptual capacities and still fail to recall a person; we might, for instance, be able to suggest a number of putatively identifying facts (the person who sat next to me at that lecture, the person who slapped Thomas at that party, etc.) while not being able to remember whether the person involved was the person in whom we are interested, or we might even have a selection of faces before us (either in the mind, or in the form of sketches or photographs) and likewise fail to pick out the correct individual. There are also the familiar points about how fine-grained our concepts would have to be for such a task, if all that remembering consists in is building up a visual and linguistic description of an individual. To attempt to explain memory purely in terms of conceptual capacities seems in some way simply to miss the point, to incorrectly characterize the phenomenology of remembering—the way in which a name can suddenly just come to us, or the way that we can occasionally be overwhelmed by memories, and so on.

There are other forms of mental control that are not related to the conceptual capacities (at least in such a straightforward way). The ability to focus upon a particular aspect of one's sensory intake is one. When we listen intently to a piece of music there is some sense in which our experience actually changes—subtle melodies may come to the fore, one's awareness of the background noise will dim (as might the awareness of what the other senses are picking up on). Likewise, we can pay attention to what is occurring at the edges

of the visual field (not the same as turning to look at something that is located at a certain angle to the line of sight), ignoring what else is going on ahead of us.⁵⁵ Such cases involve a type of mental control that can be brought to bear on experience, which need not involve conceptual capacities. Mental, experiential control, thus, can be both conceptual and nonconceptual in nature.

Turning to constraints upon thought or mental activity, one thing that we can see concerning many of the types of constraint is that they do not originate from outside of the subject, even if they are outwith the subject's control. For example, look at the following: the inability to maintain a train of thought due to some problem with the attention; the inability to remember something, whether a face or a fact; the inability to perform some mental task, such as figuring out a sum or a proof in logic; the inability to imagine (or 'picture') something; the inability to apply certain concepts correctly, or to understand a word, etc. The list goes on. An inability to remember a fact, for instance, may be due to the presence of a loud distracting noise nearby, but it is more likely to result from a failing on the subject's part—he or she simply just cannot remember. Similarly we may have poor attention spans, be bad at arithmetic, lack a lively imagination, and so on. All of these constraints originate within us, in some sense (whether for mental reasons, as when concepts are inadequately understood and employed, or for physical (or neurological) reasons, as with the inability to maintain a line of thought caused by senile dementia). There really is no other plausible way to view such examples. We cannot view them as interference from 'the outside'—there is no part of the external world which is imposing its mark upon our experience and thought in such cases as there is in standard perception. Likewise, we should not view the cases as the effects of outside influence upon 'the Will', and treat this latter component as the central component of the subject *qua agent*. To take such a line would be to hold a homuncular view of the subject: the subject would effectively be identified with the Will, with all other influences (from within and without the body) viewed as external constraints. Such a theory would not only be unpalatable but would misrepresent the most basic phenomenological facts about our experience as active human beings

⁵⁵ As discussed earlier in the example of the eyesight test.

existing in a physical, external world, in that we do not experience reality from the viewpoint of a disembodied source of intentions or ‘ego’, but rather from that of a physically embodied person in a physical world.

It is worth adding that there is no real difficulty in conceiving of such factors as constraints. We should treat our mental faculties (including our conceptual abilities) in the same way that we treat our senses. Why we might think that there is an issue here and the correct way to treat the issue will, as noted above, be returned to below.

Also originating from within the subject are those M3r-type thoughts and experiences to which the subject is an involuntary recipient. Schizophrenia may result in a sufferer having the experience as of hearing voices, experiences to which the subject as agent contributes nothing and has no control over. Nor is the subject suffering as a result of the interference of an outside agency that is causing his experiences; instead, they are caused by some internal problem, such as certain chemical imbalances in the brain. Certain thoughts of the clinically depressed might also be regarded as falling under the M3r categorization, as when they feel a near-irresistible urge to eat, or avoid work, and so on. We can treat M3r-type cases as instances of pure constraint—it is mental activity, but the subject has no control over it. He or she is *inactive*, in the main sense in which we are using the term, i.e. there is no control involved. This highlights the ambiguity in the term ‘mental activity’, as noted earlier in §1.2.1. It is also the reason behind the fact that we still term such behaviour ‘mental activity’ despite the fact that we readily acknowledge that in at least one important sense the subject (qua agent) remains completely inactive—that is, of course, the sense in which the subject can be said to have no control over his or her thoughts. In fact, our acknowledgement of the subject’s lack of control here is precisely what lies behind our treating such cases as mental illness.

§1.3.5 Experiential activity

If we move our attention to experiential control and constraint now, it is plain that we cannot explain all of the above list of examples in terms of mental control and constraint (or the operation of the will in the domain of the mental,

and frustrations thereof arising from within this realm). Opening one's eyes, or kicking a ball, for instance, plainly cannot be accounted for in this manner. We require notions of physical control and corresponding physical constraints, notions that relate to the experience that we have of ourselves as physically active, and subject to frustration of our actions.

That we do often have such control over what we have perceptual experience of is unquestionable, but it is equally unquestionable that we do not have complete control over what we experience in this way. The external world imposes its mark upon all perceptual experience, irrespective of whether we desire it to do so. The interesting issue is the extent to which we can control the content of perceptual experience, and whether there are a variety of different ways in which our attempts might be frustrated. Whether mental control and constraint also has a role to play in such experience must also be considered.

Take the case of looking at something, possibly something in the distance. As far as control goes, we can move ourselves into a suitable position, point our heads, focus our eyes, and attend to a feature or an object in our visual field, try not to be distracted by other features or objects, and so on. It would seem that all of these involve some form of physical control, as is to be expected, and that the latter two also involve (or, at least, involve in some instances) some form of mental control. In order to attend to a specific feature (or better, to *recognize* a specific feature), to see that the bird overhead is a swallow, we need to have the relevant concepts, such as the concept of a swallow. This is simply to locate the familiar distinction between (*merely*) *seeing* and *seeing as* in terms of the current project. The latter involves the employment, and occasionally the active employment, of a greater range of conceptual resources than the former. In cases such as Hanson's famous example of the cathode-ray tube, the conceptual capabilities of the perceivers are simply different,⁵⁶ and may be passively brought into play; in cases where different people are attending to different aspects of the same thing, this need not be all that there is to the case—what is important is that the observers are bringing different concepts into play simply by the act of

⁵⁶ Hanson (1958), pp. 15-18.

attending. That is to say, in the latter case we find an element of mental experiential control, just as we do in the cases that involve ‘gestalt switching’, such as the (in)famous duck-rabbit.

More interesting are the varieties of constraint that can be found in cases that involve experience. We can approach this matter by again considering the various cases of looking, as considered above. Firstly, there exists the possibility that we are unable to get into the relevantly suitable position, for whatever reason. Other objects in the vicinity may prevent us from doing so, or our own bodies may fail us. We may also be unable to make out detail, due to mist, fading light, or a failing in our eyesight. All of these are crucially physical constraints; the will is frustrated not in terms of our ability to think or conceptualize, but in terms of our ability to carry out physical exercises. Should we find that we are unable to focus our attention, or unable to make out the relevant objects or features, but not for any physical reason (as in the cases of patients suffering from certain non-standard neurological conditions, e.g. ‘The Man Who Mistook His Wife for a Hat’⁵⁷), then we would be inclined to attribute the failings to the domain of the mental, possibly more precisely the domain of the conceptual in the latter instance. This is not, of course, to deny that we might look for underlying physical (neurological) causes for such mental failings; it is only to deny that the failing is presented to us as such in experience.

There is also another way in which physical constraints can be present. When we exercise all of the forms of control that we are able to, both physical and mental, and are free from the forms of constraint noted above, it is still not up to us what we find in perceptual experience. In such experience the world is presented to us, and how it appears is beyond our ability to influence completely. We may attempt to modify or rearrange the objects in our immediate vicinity, to organize them in this way or that, in order that we influence the contents of our visual perceptions as much as possible. But this would not affect the present point. The specific appearances of the individual objects will remain. Should I move my head in a certain way, what I see at that time is in the final analysis

⁵⁷ Cf. Sacks (1985), pp. 7-21. This famous case concerned the case of a man who was unable to recognize complex shapes or objects, such as the face of his wife.

determined by how the world is at that time and the empirical facts about vision, not by what I desire to see. The contents of our local environment affect the contents of our perceptual experiences, both before and after any attempt to influence these objects. Any influence or control that we may have over the world is purely secondary; it is influence on a necessary precondition of experience, something that exists prior to the experience, namely the external world. This constraint is already in place before any form of control can be exercised—it is what makes perceptual experience perceptual.

§1.3.6 The role of concepts & the body

It was noted above that certain factors that enter into experience might be thought of as both controls and constraints depending upon the context. Our conceptual capacities (in particular the rules governing concept application), our mental faculties construed more generally, and our sense organs (and the body as a whole) seem to fit this description. For instance, in §1.3.4 above we touched upon the relationship between concepts and control. As was mentioned at that juncture, there is an interesting issue concerning the relationship between mental control and our conceptual capacities. Even if we grant that the exercise of our conceptual abilities is outwith our control in standard experience and acknowledge that concepts are brought passively into play, there do seem to be cases where we can influence what we see, hear, feel, etc. If we are expecting an important phone call, any vaguely similar noise may send us jumping towards the telephone. In the case of an ambiguous figure such as a ‘duck-rabbit’, we can sometimes switch between seeing a duck and seeing a rabbit at will. In other situations, after having jumped to the wrong conclusion, we may be accused of ‘seeing what we wanted (or expected) to see’. We can also, of course, control the concepts applied in thought to a larger extent (we can choose what to think about, imagine different possibilities, etc.). Focusing for the moment upon the case with experience, how do cases such as these stand in terms of the present discussion? In most of the cases (the notable exclusion being that of the duck-rabbit) the influence that we can exert might not be active (willed) influence, but it is influence nevertheless. Should we regard our control as extending to the employment of concepts within experience?

In general, to do this would be a mistake. On the whole we do not actively (deliberately, intentionally) employ concepts, as we might actively try to remember someone's name.⁵⁸ In fact, such instances as those just mentioned will on occasion appear more as cases with an extra level of constraint, rather than as involving more control. Someone who jumps to the wrong conclusion based upon years of prejudice and bigotry will be constrained in what he is able to see due to this emotional baggage, to give but one example.

We do have some limited influence over what concepts are passively brought into play in experience. Even the bigot has in the past held some sway over his conceptual resources, just as we all have had—he has just misapplied this influence to the extent that his conceptual repertoire has become a constraint upon his ability to see the fact of the matter in certain cases. This influence that we have is not usually concurrent with the application of the concepts in experience; instead, it generally comes beforehand, and is standardly achieved by undergoing some relevant training (although it can also come through repeatedly mulling over some particular thought). In the standard case, it is part of learning new concepts that are applicable in experience that one should try to so apply them, with the result that in time the concepts are automatically, and indeed passively applied. When a course in mechanics is taken this allows one to bring new technical concepts to bear in experience, so that which was previously just a lump of metal is recognisable as part of a car engine. At first, the subject might have to study the object and will only tentatively (and actively) apply the concept—‘is it a fuel pump?’—but in time he or she will just come to see such objects as fuel pumps automatically.⁵⁹ In our own cases, there may have been some point in time during childhood when we struggled to distinguish a leopard from a cheetah, but now when we see either, the relevant concept is automatically brought to play—we cannot help but to see the particular creature as a leopard or a cheetah. Of course, misinformation (or a bad education) can have a similar effect, as the case of the bigot illustrates. We are taught to use certain concepts

⁵⁸ This is one of the key points that McDowell is keen to emphasize in his attack on Kantian and neo-Kantian positions on the relationship between concepts and experience. Cf. McDowell (1994b).

⁵⁹ This is just the point that N. R. Hanson makes in (1958).

or think in certain ways; nevertheless, rational life involves self-reflection, and we always have the ability (and the rational, possibly moral, obligation) to reflect upon our beliefs with a view to improving these over time. This sort of self-regulatory process is part of rationality.

We do in this way have some influence in the long term over our conceptual capacities, but there is not enough influence in the immediate case to merit regarding this as a form of control. Another way of looking at this point would be to hold that the concepts brought into play in a particular perceptual experience are outwith one's control, but the contents of the conceptual repertoire from which they are drawn are not, since these can be influenced by us in the long-term to some extent.

These issues basically turn upon the way we should view the rules that are employed in concept application, irrespective of whether they are logical or empirical concepts. We are not free to think that $2 + 2 = 5$, and neither are we free to view the home computer as a miraculous sentient creature once we have learned the rules of arithmetic in the first case and certain facts about the workings of electronic machines in the latter. Once we have learned the relevant facts, concepts, etc., pertaining to something we can no longer go back to viewing it like someone completely unfamiliar with it. This is equally true in the case of a cathode-ray tube, a carburettor, a PC, or a glaciated valley. In other words, while we are able to have whole new thoughts and experiences due to this training, other thoughts and experiences are made inaccessible to us for ever more. Also, if we are wrongly taught, we can be denied the chance to have certain correct thoughts and accurate experiences for however long we are under the influence of the relevant fallacy. Consider the case of the bigot, as mentioned above, or the believer in witchcraft or demonic possession. Such an individual will be unable to have certain thoughts and experiences due to his upbringing (or self-instilled hatred). Given such cases (and the fact that we cannot control our conceptual resources in the immediate term), how are we to view the conceptual rules—should we treat them as constraints?

The situation is in some ways analogous to that of the role of the body and the senses in experience. While possession of a good pair of eyes enables one to have experiences otherwise inaccessible to one, poor eyesight leads one to (mis-) see all number of strange and inaccurate things.⁶⁰ The same can be said for all of the senses, and even for other parts of the body. In order to understand the role of the senses, etc., in experience we need to see that the senses function, and that they do not always function properly. We need to be able to say when a sense organ is working well, and when it is not. This is not, however, a serious difficulty for the current project. As Dretske writes,

In the case of natural systems (the sense organs in animals), we have some information—how much depends on the animal or sense organ in question—about when these systems are functioning normally, the way they were (we conjecture) designed (by natural selection) to function. If there is no special problem about telling whether hearts, kidneys, and pituitary glands are functioning properly, there should be no problem in finding out whether the visual or auditory system is functioning properly. If there is a problem, it is not a *philosophical* problem ... it is an empirical problem.⁶¹

When the sense are functioning correctly they act as both the means by which we gain perceptual experience and one of the means by which we exercise control over this experience. They are not forms of control themselves, nor are they forms of constraint; instead, they are one of the mechanisms—the parts of ourselves—by which we are able to have experience and to control it.⁶² The situation parallels that of action; as O'Shaughnessy notes, a "limiting factor" of action is "that a regularly acting bodily mechanism has to be the avenue through which the antecedents of action give rise to a willed event".⁶³ That is, the body both facilitates and limits the range of actions available to the agent.

To view the sensory organs or the body as constraints is only appropriate in the instances where they fail to fulfil their purpose, or fail to perform adequately.⁶⁴ In such instances it is not quite the sense organs qua sense organs

⁶⁰ As the 'Mr. Magoo' cartoons went to great lengths to illustrate.

⁶¹ Dretske (1994), pp. 272-3.

⁶² Obviously in the case of the Weather Watchers this second function is not available.

⁶³ O'Shaughnessy (1980), vol. 2, pp. xviii-xix.

⁶⁴ It is the lack of such a possibility of constraint that leads O'Shaughnessy to claim that in the case of silent talking there is no mechanism involved, and that all we have are "sheer willings". It is worth noting that the main point is also true in cases of action. The body is not a constraint that

that are the constraints, but whatever is causing the failure in question, e.g. a damaged retina, or muscle and nerve damage to the limbs. This does, however, point to a close affinity between the body in general and the senses in particular, and the phenomenon of control; that this is so is to be expected, given the nature, and the function, of the senses. If we view our physical make-up as a constraint then we fundamentally misrepresent its place within experience. The senses, and our bodies in general, are not things that get in the way of our determining the content of our experiences, as constraints might be said to be; rather, they are precisely what allow us to have certain forms of experience in the first place. That is, they are the means by which certain kinds of experience are had. The senses are not obstructions to gaining various experiences, as constraints are, but are essential to the gaining of such experiences. To claim that the senses are constraints to the gaining of certain forms of experience, e.g. the kind of experience that a bat may gain via use of its radar, in that they do not, due to their physical structure, allow us to gain such kinds of experience, is disingenuous. We can hardly accuse our arms of preventing us from flying on the grounds that they occupy the space that our wings would require.

Similar accounts can be given of the roles of the various mental faculties, including the conceptual capacities. The memory, imagination, etc., all allow us to have certain sorts of thoughts and experiences, yet they are not in themselves either controls or constraints. When functioning incorrectly they, or more correctly their defects, may indeed appear as constraints, just as the senses do. With our conceptual abilities, the rules of concept application (including the rules of logic and mathematics as well as those for the application of individual, empirical concepts) provide the structured, stable basis for certain thoughts and experiences that would otherwise be unavailable. And again as with the senses, we can find a form of constraint that is caused by a malfunctioning or incorrectly employed faculty, when we misrepresent the various rules of concept use (to get '2+2=5', or whatever). These faculties all provide both the means and the limits for certain sorts of thoughts and experiences. They are not forms of control;

prevents one from flying; it (or parts thereof) might, however, act as a constraint when one finds oneself unable to perform tasks that one could reasonably expect to be able to (e.g. when arthritis prevents one from picking up a pen).

instead, they are the path by which we have certain experiences in the first place. This is their primary role, even if on occasion they can act as the means by which we do have some control, or even sometimes as constraints.

§1.4 Active experience without action?

As noted in the Introduction and in §1.3 above, we have to focus upon a subject's experience of action, rather than on her acting. This move was motivated by the fact that the forms of experience available to a subject—the sense modalities that the subject has, whether she can exercise prior control over her experience, and so on—will partly determine the range of concepts available to her, and this connection between thought and experience will be central to the kinds of arguments that will be employed in later chapters. Emphasizing a subject's experience of action does, however, seem to raise the possibility of a potentially serious problem. If we are only concerned with active experience—the possibly illusory experience of action—divorced from the action itself, is it then possible that a subject might have such experience in the absence of the latter? If we create a gap between experience and that which the experience is of, do we not leave space for a scepticism about the alleged object of experience?

§1.4.1 Scepticism about the experience of action

Given, then, the connection between experience and concept possession, the pertinent issue concerns whether a subject could have all the experience characteristic of physical action, but yet not be active. In effect, we have to ask if a wholesale scepticism about action is possible. Just as certain 'brain-in-a-vat' scenarios raise sceptical issues about the totality of our beliefs concerning the nature and reality of the external world by forcing a gap between the experience on the one hand and existence of the external world on the other, so in the present case we have to consider the possibility that there could be subjects who believed themselves to be active and experienced themselves as such but were systematically mistaken.

The main aim of the present work is to argue that a creature has to be able to act in order to possess and employ spatial concepts. The apparent possibility of illusory experience of action is problematic within this context for the

following reasons. If it could be shown to be possible that a subject without the ability to act in any way whatsoever—one of Galen Strawson's Weather Watchers for example—could still believe itself to be acting and have the appropriate accompanying experience, then it might seem that all that is required for spatial understanding is the (possibly illusory) *experience* that one was acting at certain times. This would undermine the main thesis by suggesting that such experience was all that was required to allow one to develop the appropriate concepts, and that action had no central place within any explanation of spatial awareness.⁶⁵

One thing to note here is that the presence of the appropriate experience is essential: beliefs about one's own activity are intrinsically connected to one's experience. Judgements about one's actions on the whole are not made purely by reflection upon other beliefs that one has, in isolation from one's experience. This may be the case in certain isolated instances, but it cannot be the norm.⁶⁶ When trying to recall whether I washed the dishes, I might note that the dishes used are now clean, and that no-one else has been in the house. From this, I might infer that I did after all perform a certain action (I washed the dishes). While certain judgements about past actions might be of this form, it is clear that those concerning present actions are not. Whether one is or is not acting is not an inference one draws from other beliefs. What is relevant, rather, is one's present course of experience.⁶⁷ Equally, a subject does not come to believe that she has just now acted by making a judgement based upon a changing course of experience—one does not first experience some change in one's perceptions and then judge that this must have been because one has acted. The apparent awareness of our own activity comes hand-in-hand with the experience of the activity or even precedes it, as in the case of planned action. For such reasons as these, if the sort of wholesale scepticism about action mentioned above is to be possible it must be the case that an actually passive subject (e.g. a Weather

⁶⁵ In particular, it might leave the main arguments open to an attack of the sort that Stroud makes against transcendental arguments. Cf. § 3.4 for more details.

⁶⁶ See § 1.3.2 for a discussion of why the awareness of action must involve experience.

⁶⁷ This, of course, is not to deny that certain beliefs will be relevant in such cases. In order to act, one might have to believe that one is so able, and so on. Cf. the discussion of intuitive mechanics in § 3.5.

Watcher) could have active experience, i.e. the (frequent) illusion that it was acting.

For the relevant kind of scepticism to get a hold, we need to demonstrate that we can be mistaken about whether or not we have acted in cases where it seems for all the world to us as if we have acted. Essentially, we need examples in which the subject has the experience typical of bodily action and yet we want to say that the subject did not as a matter of fact act. If we can find such cases then there may be some possibility of generalizing to the claim that all experience as of action could be of this sort. This, in turn, would threaten to undermine the main claim of the thesis, that action is necessary for spatial awareness, for it could then be argued that all that is actually necessary is the experience as of acting.

The cases which we will have to consider are those involving B1-type action. This was deliberate, or premeditated, action.⁶⁸ Our present discussion has to focus on such cases given the primacy of this variety of action, as illustrated in §1.2.2 above. If it is possible to be misled concerning B1-type cases, then it is also undoubtedly possible to be deceived about B2-type cases as well. Nevertheless, all one's actions cannot be of this second sort; we can only make sense of this form of action in the presence of full-blooded intentional action. Given this, we will attempt to find illusory cases of B1-activity, and ask whether all our apparent activity could be of this sort. If there could be no true instances of B1-type action in a subject's history, then there could be no action at all.

It is worth stressing that the kind of cases in which we are interested are not those of the familiar Wittgensteinian sort in which, for example, a blindfolded subject tries to raise his arm but is prevented from doing so unbeknownst to him.⁶⁹ These cases raise interesting questions about what, if anything, is left over when the bodily movement is subtracted from the action—whether there is such a thing as an act of will—and might also be seen to point

⁶⁸ Cf. §1.2.1.

⁶⁹ The original is in Wittgenstein (1953), §624.

towards the interdependency between action and perception. These issues, however, are not the ones with which we are presently concerned. The cases in which we are interested are those in which the subject tries to act and perceives the bodily movement occurring as desired (the patient's arm does actually move). Is it conceivable that there could be a case where act and intention cohere in this fashion but there is not actually an action? Could this always be the case?

In the following I will accept that we should give an affirmative answer to the first question while trying to show that all experience could not be of this kind. We will look at some illusory cases momentarily. First, however, let us try to get some idea of why this question might be of interest even outwith the present context. If we approach our own action from a phenomenological perspective, the first thing that I think we find is that experience of one's own action is fundamentally different from other sorts of experience in which the subject is more or less passive. That I have acted is not something I discover *from* the experience: the experience of acting is already shaped by this awareness. I might find out that my heart is racing or the earth is moving through experience, but I do not find out that I am excitedly running down the street (to emphasize the point made above). Should it transpire that there is no substance to this distinction—that nothing that as a matter of fact underlies the distinction—we would have to re-evaluate our relationship to our environment.

The possibility that one could be mistaken in attributing any experiential changes, whether these be changes in one's experiences or changes in one's environment, to one's own agency should be deeply troubling. It is bad enough that it appears that we can occasionally get it wrong—that a bodily movement which one was inclined to consider an action was caused by something other than oneself—but the idea that one might never be responsible for one's apparent actions threatens one's conception of oneself as a rational, autonomous agent. The suggestion that one has never acted strikes at the very heart of one's beliefs about one's nature.⁷⁰

⁷⁰ It is for closely related reasons, namely the suggestion that it denies one the ability to partake in rational activity, that Christopher Hookway treats scepticism as a very specific form of the problem of freedom vs. determinism. See Hookway (1990), Ch. 7.

In light of this, we have to disregard the fact that one is inclined to believe that one knows when one has acted. Wittgenstein's statement that "voluntary movement is marked by the absence of surprise", while picking out an important feature of the awareness of one's actions, cannot serve as a sufficient criterion for action if we allow cases such as those below to stand.⁷¹

§1.4.2 Some problem cases

Let us look at three cases that seem to provide us with examples of the appropriate sort. We will then have to consider what makes them so, which will involve some consideration of certain aspects of the metaphysics of action, and the possibility that all apparent actions could be of this sort. The test cases are:

(1) Imagine that Kevin is told to raise his arm at a certain time. Just before he is about to do this, there is a sudden discharge of static from his nylon slacks that somehow manages to cause his arm to ascend in just the way in which he intended to raise it. Despite the slight shock, he still believes that he raised his arm.

(2) This next example is O'Shaughnessy's. He attempts to provide a thought experiment in which a subject is systematically misled about the source of a bodily movement which he believes to be an action. O'Shaughnessy writes:

Suppose that a psychological subject is performing regular trained actions. For example, at t_1 exactly, and with his elbow anchored at a fixed point on a table, he moves his hand at a specified rate along a graduated path traced out on that table. We shall suppose that this has been laboriously practised and that he can perform it to perfection. Furthermore, we have constructed and installed a fantastic machine which can get his arm to make precisely this movement. Then at t_1 when he is to begin moving his arm a bell rings to inform him of the fact; and a mere miniscule instant later the machine swings into action. We see his arm move in exactly the required way!⁷²

What is happening here is that the time at which the subject will try to act is known. Just prior to this, a different process is caused to occur which results in the same effect (the subject's arm moves). The subject of the experiment does not, then, move his arm, but remains unaware of this fact.

⁷¹ Wittgenstein (1953), §628.

⁷² O'Shaughnessy (1980), vol. 1, p. 116.

(3) Take a brain-in-a-vat—say Brian's. Wire it up to a suitable super computer with both input and output connections, and then attach this by a radio link to a human-like robot (even a suitably wired up human body). The input from the robot's sensors—its eyes, ears, nose, tongue and skin—are transmitted to the brain so as to cause or give rise to experience, and the brain's signals, generated when Brian tries to act, are sent via the computer to the robot, so that it carries out his actions.⁷³ It seems possible to describe the robot as Brian's body—it does what he wants it to (at least inasmuch as any of our bodies do this), he sees through its eyes, and so on. If the robot hits Brian's neighbour in this fashion, then it is Brian that has hit his neighbour. Now, imagine that a scientist sits at the computer, reading Brian's intentions off a screen. He sees what Brian is trying to do, and then makes the robot perform this action. Is it still true to say that the robot performs Brian's actions? It will seem to Brian that they are, but there is now a sentient intermediary with the power of veto who actually tells the robot what to do.

Now, all of these cases seem to pose some problems for one's awareness of one's own actions. In each of these cases there is a degree of ambiguity as to whether we can correctly describe the individual in question as having acted or not. In the first case, the agent does not actually bring about the one-off action—we can think of this as sheer coincidence or fluke. With the second the same is true, but there is a deliberate intention on the part of a third party to deceive the subject, and the case could in principle extend to cover a number of repeated instances. Finally, the third example presents us with repeated cases and a conscious intermediary that separates the subject (Brian) from what he regards as his body (the robot/corpse), a fact which might lead us to think that the robot would be more correctly described as being under the control of the scientist rather than Brian. In each case *the subject* may believe that he or she has acted—but this gap between belief and the fact of the matter is precisely the issue at hand.

⁷³ This is basically the scenario in Dennett (1978b).

§1.4.3 The metaphysics of action

What we now have to do is consider the extent to which experience as of action (i.e. active experience) and action can come apart. In order to do this we should consider each of the above cases in turn to establish the prospects for further episodes of misleading experience of that variety. If we are to consider the suggestion that active experience and action could come apart to such an extent that a passive creature could believe itself to be active, then we will also need to establish certain criteria for what is to count as an action. Once this is in place we will be better placed to tackle the main issue of this section.

The chances that case (1) above could allow for further cases of this variety are not very high. This case involved a highly unusual occurrence whose outcome cohered with the subject's concurrent intentions only by coincidence: it just happened to be the case that the static charge caused the subject's arm to move in just the right way at the just the right speed at just the right time, and so on. The intention (desire, belief) had no role to play in the fact that the subject's arm was raised. It seems clear that if a subject is to be systematically deceived about whether or not she is bringing about the desired state of affairs, then her intentions must be taken into account at some point in the process: either they must be reliably pre-empted (see the discussion of the next case) or they must have some role to play in the causal story, albeit a non-standard one (as in the third case). Of course, the possibility of massive coincidence cannot be excluded entirely—perhaps static discharge could account for more than we imagine—but we will set this aside for the moment.

The fact that the second example does admit of the possibility for further, repeated cases follows from the fact that the subject's intentions are known to the experimenter. In the example, the subject had been trained by the scientist to repeat an action upon the occurrence of a certain stimulus (a bell ringing). What happens is that when the subject decides (wills) to move his arm at the appropriate moment he is actually unable to move it, although he is unaware of this fact. The arm movement has already been triggered by the machine constructed for this purpose a fraction of an instant before. Given the negligible

difference in time between the machine's causing of the action and the subject's intention it appears to the subject that he has moved his arm in the way intended.

Although his intention has no causal role to play here, the subject still believes he has performed the action as intended. This may be due to the fact that the subject's intentions are already known, as is the way in which the subject was going to move. The fact that the subject has been trained to perform an exact bodily movement is important; it allows for the scientist to know precisely what the subject is trying to do, and opens up the possibility that the scientist might replicate it. Were this not so, the experimenter would not have the necessary foreknowledge to deceive the subject. This is why it is of central importance in this case that the subject is only so acting at the behest of the experimenter.

That such a case appears to be possible turns upon a host of requirements, as should be clear. In order to deceive the subject, the experimenter needs to know precisely what the subject is going to do; when he is going to do it; in what way the subject is going to do it. For a simple movement like the one offered by O'Shaughnessy it seems just about possible to achieve this, although there is always the strong possibility that the subject will notice some divergence between intention and experience, between output and input. This is because (i) for even the simplest movement there will be more than one way to perform it, this in part due to factors such as the subject's initial posture and the local conditions (imagine, for example, that there was an earthquake in progress), and (ii) no bodily action consists only in the generation of an intention with the bodily movement following in a smooth mechanical manner. O'Shaughnessy attempts to defuse (i) by outlining a case where the action is pure bodily movement (what we might call a basic action) and takes place under laboratory conditions (thus minimizing the possibility of unexpected interruptions, etc.); there is no further goal to be achieved beyond the performance of this movement. The second point is more problematic, though. All action consists in a complex of perceptual and proprioceptive feedback concerning one's movement, and subtle adjustments in the movement in response to this. When one reaches for a cup one doesn't just have the intention *pick up the cup* and shoot one's arm out as if one were firing a grappling hook; the movement is controlled throughout its duration, with slight

alterations made in speed, direction, strength, etc., as required. To put the point in a different way, one's active involvement in the bodily action does not end as soon as the intention is had and the body swings into action. Such an account may be suitable for the ways in which one controls a character in a computer game; when you press the appropriate button the character jumps, press another button and she runs, and so on. When the 'act' is in progress you are not able to make any adjustments to compensate for initial errors—the jump continues until its end and only then is the character restored to your control.

Our own actions are not like this, and this is as much a phenomenological fact as it is a physical fact. We are usually aware of our continuing control in action, and exploit this fully—that is why most actions are successful. In O'Shaughnessy's example there is always the possibility that the actual lack of control could manifest itself phenomenologically—the subject could suddenly become aware that his body is not acting in the way he desired, that it is no longer responding appropriately. Consider in this context the disorientation that one sometimes feels when one had mistakenly believed that one was in full (i.e. normal) control of one's body only to be reminded that this was not the case (by gravity or whatever), such as when one is ill or coming round from an anaesthetic. The illusion of self-control does not tend to last for long at such times.

This case could in principle be repeated—that is, the subject could be deceived again concerning the same action—only if the subject was inclined to co-operate further with the experiment. Were he not so inclined, the illusion would be broken the next time the machine swung into operation upon the ringing of the bell. The chances for generalizing the illusion to other actions is even more remote. Even if similar machines were constructed to correspond to other basic actions (and were made less and less cumbersome), they could only ever fool the subject when he intended to perform just that basic action at a time known to the experimenter and in way known (e.g. at just this speed). The scientist would have to know every detail of the conditions under which the subject was trying to act, so as to be able to accommodate variations in the way the action would have to be performed. Moving one's hand in a straight line in a

laboratory is a different thing from moving one's hand in a straight line under water or in a gale or on a rocking boat. Given that any substantive action—any action with a goal that goes beyond the performing of a particular bodily movement—involves a massive degree of complexity, there is simply no chance of our experimenter being able to trick anybody even in the most straightforward of cases, such as the turning of a page in a book. This action involves a substantial number of variables, and could be comprised out of any number of basic actions in a multitude of variations, with issues such as: which finger to use to turn the page; how to balance the book with one hand whilst the other turns the page; how quickly to turn it; how hard to grasp the page; how to angle the book, how to change one's grip to prevent it from being blown out of one's hand, and so on. And this is to ignore such complex cases as juggling, running for a bus, writing, or even scratching one's nose (one has to locate the itch and decide just how hard to scratch, after all).

This also reveals another important point about human action. It may in principle be possible to characterize any particular human action in terms of the specific bodily, basic actions that comprise its performance—the hand and arm movement that I made when I signed my name on that particular cheque, for example. However, a subject will almost never decide upon a particular series of basic actions when choosing to perform a more complex action, such as writing one's name (contrast the playing of a computer game here). The subject merely decides to write his name; beyond picking up the pen with the appropriate hand and moving it to the correct place on the paper, quite how this goal is to be achieved is left up to circumstance and habit—or is not even considered, to be more accurate. The particular muscular movements are certainly not reflected upon. Even after the action is performed, if asked the subject will in all likelihood have no awareness of which muscle did what and when, such as whether the fingers or the wrist moved to make the loop in the 'L'. Further, each performance of the same type of action will vary—consider signing one's name while leaning on a wall, while reclining, while sitting bolt upright, and so on. Planning a substantive action in terms of which basic actions are to be employed is not only non-standard, it is downright difficult—and successfully performing

an action in such a way is even harder. The moral is that even the simplest and most common actions (when performed outwith artificial, experimental situations such as that outlined by O'Shaughnessy) are not reducible to a fixed series of basic actions which could be pre-known by any deceiving scientist (or Cartesian demon).

If a subject is to be misled concerning any significant number of different actions (or even one action of any complexity), then it would seem as if the only way to accommodate this would be to grant some place to the subject's intentions in the causal account of the relevant event. This is what case (3) above attempts to do. Before turning to this example there are some further comments that are worth making in light of the present discussion.

In his own discussion of the case, O'Shaughnessy focuses upon the fact that the situation does not support the counterfactuals that are necessary if the case is to be one of action.⁷⁴ For example, had the subject decided against moving his arm, or decided to stop the movement part way through, this would have had no effect upon the arm's motion—it would have moved irrespective. This is enough to demonstrate that the case is not one of action, that the bodily movement was not in the control of the subject. In part this is due to the unusual role of the subject's intentions here, as discussed above. O'Shaughnessy, however, emphasizes the need for some kind of underlying causal mechanism to explain the action. His aim is to demonstrate that Wittgenstein's aphorism does not provide a sufficient criterion for an event being an action—there can be a lack of surprise in the relevant sense even when there is no action.

The requirement that O'Shaughnessy proposes is that there should be a suitable causal mechanism that supports all the necessary counterfactuals. The above considerations should allow us to see where this demand comes from. What is important is that the subject's intentions are accorded a role to play, in order to distinguish action from cases such as the above, and that the role is of the right sort, in order to deal with familiar examples of deviant causal chains. Ascertaining which are the appropriate kinds of mechanism will not be within the

⁷⁴ Cf. O'Shaughnessy (1980), Ch. 4.

scope of this dissertation; nevertheless, we will look at some relevant factors below.

There is one cautionary point worth making in this context. We should be able to see the motivation behind O'Shaughnessy's approach; however, we should be reluctant to place too much emphasis upon the place of counterfactuals. For consider, one of the issues we are concerned with is not just what it *is* to act, but whether we can *know* whether or not we have acted. And the problem with counterfactuals is that due to their very nature we can never know for certain what would have happened had this or that event not occurred. In other words, if actions are defined in terms of counterfactuals in order to know whether I just acted I have to know what would have happened had I not tried to act. How could I possibly know this? Relying upon counterfactuals in such epistemological cases inevitably leads to the consequence that we *cannot* know—we can never know whether or not we actually acted. This is an unpalatable conclusion which would seem to deny us epistemological access to our own agency, which in turn endangers this very agency itself. If we can never even in principle know whether we have acted, it seems that a belief in our own agency becomes a metaphysical belief open to attack from the likes of verificationists.

The idea of a deviant causal chain is of particular relevance to the third case. Here, the subject's intentions do play a part in the causal story, just a highly non-standard one. When discussing a relevantly similar case in which a subject has little homunculi with free will working his muscles from the inside, O'Shaughnessy argues that any bodily action is actually an action by the relevant homunculi, not an action on the part of the subject.⁷⁵ This is because the homunculi *chose* to go along with the subject's intentions and move the appropriate muscles. In our example, the parallel claim would be that Brian is not the true agent in any case of bodily movement; the intervening scientist, sitting at his controls is the true agent, as it is he or she who decides whether or not the remote-controlled body is going to behave as desired. Both scientist and

⁷⁵ O'Shaughnessy (1980), Ch. 4, §3.

homunculus are free; they have to choose whether to instruct the body in accordance with the subject's wishes.

It is this freedom that moves O'Shaughnessy to declare that his subject is not the agent. He claims that were the subject enslaved (were he hypnotized or chained), the story would be a different one. In such a case the action would belong to the subject and not the homunculi. This answer connects closely with the issue of responsibility, and O'Shaughnessy brings in such considerations to support his view on the source of agency in this case. It appears that responsibility is a determinant of agency for O'Shaughnessy, in that whoever the responsibility lies with is the agent. Nevertheless, this seems to get the order of determination wrong. Our views on responsibility should be shaped by our views on action; the latter determine the former, and not the reverse.

While holding that counterfactuals are not the defining feature of action, we can still acknowledge the fact that they are significant and relevant. If a case is to constitute a case of an action it must support a number of related counterfactual claims; for example, if the subject had not tried to do p (where p is a basic action), p would not have occurred. It seems that in (3) (and in O'Shaughnessy's homunculus case) the counterfactuals are supported as long as the scientist (homunculus) decides to continue acting upon the subject's intentions. But as the case is set up, this is precisely what the scientist has been doing. Of course, he or she could stop doing so; but equally, our bodies could cease to function as we desire (as all too often happens). That the latter occurs does not prevent our earlier intentional bodily movements from being actions; it might mean that we cannot act any longer, but that is clearly a different matter. In (3) as described, it seems that we have a situation that specifically does support the appropriate counterfactuals; Brian has not found his 'body' going off to the shops of its own accord or failing to respond to his intentions, volitions or whatever. Rather, his 'body' has been behaving in the way that normal human bodies do in relation to his intentions. And if this is true, then the counterfactuals are satisfied.

It might seem that this case is one which clearly instantiates a deviant causal chain. Our actions presumably do not proceed via a free, sentient intermediary, particularly one that stands between oneself and one's body. Were this to happen to an embodied creature on a rare occasion (although it is hard to see how it might) then we would have grounds for claiming that there was a deviant causal chain in that instance. Nevertheless, such a mechanism is the norm for a subject in Brian's state. If we assume that Brian has been in this state for a significant period, to deny him the possibility of action on the grounds that the mechanism employed in his case substantially differs from that employed in our own seems to be an unjustified instance of bias against creatures with structures other than our own. The causal chain is not deviant as far as Brian would be concerned—and this holds whether he is aware of the matter or not.

Consider the case of a normal, embodied human. The average non-physiologist will have next to no grasp of how the body performs basic actions; they might know that certain muscles and the nervous system are involved, but beyond that they may have little idea, lacking any details whatsoever. This lack of understanding does not preclude the possibility of their acting; it is irrelevant to it. What matters is that they can intentionally employ their bodies in certain ways, not that they grasp what is going on under the skin. Of course, they will need to know how to move their bodies, their own strength, and such the like, but they need not know what these consist in. Their actions might have to be instantiated in such a way that maintains a degree of regularity in the underlying causal processes in order to avoid any possibilities of deviant chains, but they do not have to know what these are. This is a matter for empirical science to uncover. The key fact here is that for any creature there must be some underlying reliable mechanism that allows the creature to act more-or-less consistently and successfully. It is in terms of such a mechanism that we can make sense of an apparent action which is not brought about in the standard way, of the idea of a deviant causal chain. It cannot be the case that all of the causal chains underlying a creature's actions are deviant.

Neither does the presence of consciousness add anything relevant in Brian's situation. The fact that the scientist standardly *carries out* Brian's

intentions is the important fact. This is what allows both Brian to function and the counterfactuals to stand. Of course, there are issues concerning the scientist's partial responsibility for any actions that Brian might carry out, but these are not the issues with which we are concerned. What we have to take onboard is that this is just the way in which Brian's actions are instantiated—it is a fact about his physical structure.

If we allow that as the situation is described Brian does act, then case (3) is not one which poses a problem for the current thesis. Of course, there may be overwhelming practical reasons why such a set-up could not work; it would have to accommodate all the subtle, ongoing corrections that are found in any action, and it would have to do this in real time. No roomful of scientists could achieve this, unless there was one lab worker per muscle, or whatever. In this kind of situation each individual scientist would be unaware of the workings and actions of the system as a whole, and issues of responsibility would no longer seem to apply. Such thoughts are not to the point at the present time, though. The key thing to note is that what is required is a reliable mechanism by which the agent can perform actions. This is the agent's means of action; it is not something that the agent acts upon. In the case of animals (including humans), this mechanism is the body. We have to ask whether this need be the case.

§1.4.4 Two apparent counterexamples

The reason that this is important is that we can envisage other scenarios in which it seems to be possible that a subject could hold himself to be active where this was never the case—a paralysed subject might believe himself to be acting by psychokinesis alone, for example. Cases of this sort are relevant in that it seemed above that it was (at least in part) the fact that the performance of any complex action was composed of basic actions that minimized the possibility of error. If such basic actions are dropped from the picture then the possibility of systematic error may arise again. We will look at such a situation shortly. Before that, however, it is worth noting that this is only one of two main places where the above sketch of action might be challenged. It could also be suggested that the requirement of complexity is mistaken, that there could be a creature only capable of what we would think of as basic actions. The objection that I wish to

look at first claims that the presence of a reliable, causal mechanism that is experienced as the subject's *body* is not necessary; there could be alternative mechanisms with which the subject felt no such affinity. If this is possible, the changes brought about by the subject would not include any basic actions, those actions which connect the subject's wider goals with his immediate doings.

The issue can be brought out by considering the following thought. Is it possible that there could be creatures similar to the Weather Watchers in that they are rooted to the spot, unable to move their bodies in any way whatsoever, yet who believe they can bring about change merely by wishing for it? Alternatively, we can imagine their theistic cousins who believe that they can bring about change by prayer alone. Could there be such a creature?

Whether these creatures actually ever bring any change about—i.e. whether they ever figure in the causal accounts of any local change—is not to the point. It is whether they can *conceive* and *believe* themselves to be doing so that matters. If this is possible, it would present a strong challenge to my main claim. For it could well transpire that all of their beliefs were as a matter of fact wrong—they never did bring about any of the changes that they credited themselves with. To see this, we can flesh out the story a little. The creatures have sense organs; they can perceive change occurring in their vicinity.⁷⁶ They do not, however, have control over their physical bodies.⁷⁷ Still, they are interested in their surroundings and the state of the world. Despite the absence of active bodies, they believe that they can bring about local change by thought alone, whether by wishing or praying for it. What's more, this often seems to be successful: each morning they wish the sun to rise and it does, and every evening it falls below the horizon on their request. When there is a bright electric flash in the sky they wish for an accompanying loud booming noise, which follows shortly afterwards. And so on.

⁷⁶ To deny them sense organs would be to contradict the discussion in §1.3.2 concerning the impossibility of non-mental, non-experiential control (or action without the possibility of perception).

⁷⁷ We can set aside the issue as to whether they could even conceive of these as their bodies.

Do these creatures act? Of course not. Their desires play no role in the causation of the sun rising and setting, or of lightning and thunder, and the like. Can they believe themselves to be active? For all that has been said so far, it seems that they might, to the extent that their mental willings appear to cause worldly changes. If this conclusion is allowed to stand, there would be the potential for a serious problem for the proposed connection between action and active experience. It was, after all, the role of basic bodily actions that in part created the high degree of complexity which made it so difficult to deceive the subject about the source of action. Without such actions, it might seem that action and active experience can come apart in such cases, leaving the main arguments open to criticisms of the type made famous by Stroud.⁷⁸ Active experience might be essential for spatial concept possession, but bodily action might not.

I think that this problem can be defused. I will try to demonstrate this by raising some relevant considerations as to how this case differs from more standard cases of action (i.e. bodily action). These considerations will be somewhat brief, but hopefully they will suggest that such a creature could not conceive of itself as acting in the first place. It might be tempting, though, to try to tackle this problem in an off-the-cuff way, essentially by claiming that it is not a problem at all.

The thought might be this. We can deny this problem in a quicker fashion by denying that these creatures are capable of active experience at all. After all, the experience of which they appear to be capable is not on a par with our own experience of being active within the world. They do not experience the subtle, intricate interplay with their environment that we do when we perform any reasonably complex action. There is no ongoing perceptual feedback of the sort that is often thought to be essential in cases of action.⁷⁹ If there is any ambiguity about the matter, we might even define 'active experience' in a more careful manner, as the experience as of one's bodily action, or some such thing.

⁷⁸ See the Introduction, and §3.4.

⁷⁹ Cf. Armstrong (1993), Chs. 10 and 11, and O'Shaughnessy (1963) (reprinted with alterations as O'Shaughnessy (1980) Ch. 8).

Alternatively, we might read the current thought experiment as suggesting that there could be active creatures without the sorts of active experience in which we are interested, and this would also suit us just fine.

This line of argument would be entirely unsatisfactory. Our notion of 'active experience' is primarily a phenomenological one; it relates to the experience that one has of one's apparent activity, whether it be mental or physical. As the previous section illustrated, there can be an issue as to the true cause of any course of active experience, whether it stems from one's actions or another source. It seems that there is room for active experience without action. Given this, and the fact that our subjects in cases (1) and (2) above appeared to have active experience, there seems no good reason to deny this kind of experience to the present creatures even if they never did act. As far as has been said so far, their belief in their own activity might permeate their experience to the extent that it did seem to them as if they were having an experience of their own activity. Their active experience might differ radically from our own, but this is not reason enough to deny that it is active experience.

We need other grounds to deny them active experience. Let us approach this by contrasting their situation with our own. Firstly, then, how does such a case differ from the bodily activity with which we are far more familiar? Notice that there is nothing that takes the part played by basic actions; nothing, that is, out of which all actions are composed. Standard human action is built up out of a finite repertoire of bodily movements. Novel actions are achieved through an implicit knowledge of the basic actions of which we are capable (or, if this sounds too atomistic, of the range of movements of which one's body is capable). To pre-empt later discussion, one must have a certain kind of body image (a grasp of one's structure and possibilities for movement) and an intuitive mechanics (a grasp of how physical objects interact).⁸⁰ One must be aware of the mechanism employed in bodily action, and of its intimate connections to oneself and one's possibilities for acting.⁸¹ Even Descartes had to acknowledge the central place of the body in experience; this lies behind his comments on the

⁸⁰ Cf. §3.5.

⁸¹ That is, one must know how to act, not how the body works (see §1.4.3).

asymmetry between the relationship of the mind to the body on the one hand and that of a captain to his ship on the other.⁸² The former connection is of a far more intimate nature than the latter, as Descartes recognized. While one does not (and possibly cannot, as suggested above in the previous section) plan one's movements by plotting step-by-step which basic actions will occur in what order, one's prior grasp of the possibilities of action are essential if one is to perform a previously untried action. This does not imply, it should be stressed, that one cannot fail in one's attempt to act in a new fashion, or that one might be at a loss as to just what one should do in order to achieve a goal, but it does imply that one should at least have a rudimentary grasp of the kind of thing that one must do. Consider learning to walk the tightrope, for example. It is certainly not required that before one attempts this one must know just how one goes about it (the correct posture, how the arms should be used for balance, etc.), but one does know very roughly how to go about the task—the legs are put one in front of the other very slowly and very carefully, etc.

Every physical action will be of this sort (unless it is a pure basic action). Now consider the present case of psychokinesis or prayer. There is simply no fundamental level of action, no language of action out of which all acts are formed. The content and structure of the action is just the content and structure of the intention, with no gap between them. If the subject wishes to raise the moon, the alleged action is the raising of the moon and the intention is the raising of the moon. The intention connects immediately with the desired outcome, in the case of successful action, or it does not, in failed action. Either way, there is no mediation, no mechanism employed.

This is rather troublesome, to say the very least. What it suggests is that the only limit placed upon the creature's ability to act is its ability to form intentions and desires. If it can wish that it rain, it can attempt to bring this about. If it can desire that the world be Euclidean, then it can attempt to bring this about. There seems to be no room for anything that might be labelled a 'trying', that falls between the having of the desire that *p* and the occurrence or

⁸² Descartes (1968).

non-occurrence of p and is part of the creature's attempt at bringing about p . This is an important point. We have to ask whether the creature could grasp the distinction between merely desiring p and actively trying to bring about p . I can desire that Elvis is alive, or that peace would come to Northern Ireland—I can wish that this were the case, and even pray that it is—while not trying to make it so, and I grasp this fact.⁸³ It is not clear that this is possible for our present creatures. If this is so, then any relevant concept they might possess is radically indeterminate between the concepts of *wishing* and *trying*. And if this is the case, then any concept they do happen to possess is not the concept of action.

Similarly, the creature will be unable to distinguish between cases in which it desired and also brought about p , and cases where it desired p but p occurred only coincidentally. If I wish that the sun should rise I can acknowledge the fact that I had nothing to do with its actually doing so; I can grasp the notion of a physical cause lying behind an event. If in doubt I can investigate the causal history of the event to see if there was any way in which I unwittingly played a role and thus could be responsible—but this process relies upon a grasp of the possibility of different, competing physical mechanisms existing. This is not available in the creature's case. There is no gap between desiring and trying, and consequently nothing to distinguish between success and coincidence.⁸⁴ This is not just to say that the creatures would as a matter of fact be unable to investigate their own acts; the key point is that it is part and parcel of the concept of *action* that one be aware of the range of possible outcomes, a range that extends beyond that of *succeed fully* and *fail completely*, yet these are the only two outcomes that the creature could recognize. Either the event occurs as desired or not: if it does, then it is a successful action; if not, then it is a failed attempt. To only admit these two options—to only *recognize* these—is to operate with a concept that is radically indeterminate between that of action and that of happy coincidence, and this is not the concept of action at all. If they cannot distinguish between success

⁸³ More, it seems that I can desire this without holding that were I able to make it so I would. Cf. Michael Smith's discussion of G. Strawson (1994) in Smith (1998).

⁸⁴ To see this even more clearly, imagine a case where different creatures simultaneously desire the same outcome. We should be able to ask: if it does come about, which one causes it?

and coincidence even in principle, then they simply do not have the concept success.

This line of thought at least points to one major difficulty with granting such creatures the idea of action. It is also worth noting that the above discussion suggests that if the creatures were able to act, every action of theirs must in some sense be basic, in that it was not composed of simpler, basic actions. We cannot use the generative aspect of grammar to avoid this problem. To desire that the sun set is not to have a desire about the sun combined with the desire that something set. The intensional nature of the desire makes this clear. If we were to grant such creatures the notion of action then it would have to be of a sort that was by nature potentially infinite, limited only by the creature's current linguistic skills. And this is a difficult possibility to allow.

One final point. Again granting these creatures the concept of action for the sake of argument, there is an interesting parallel to be made between our mental actions and their physical actions. If we reflect on §1.3 ff. we will note that mental action is in part characterized by the lack of any obvious mechanism. In the case of standard bodily action we try and achieve our goals by employing our bodies more or less successfully. There is no equivalent in mental activity. To say that we employ our minds is disingenuous; our minds are not something that can be objectified, treated as something distinct from the means by which we act. There is no mental equivalent to scratching an itchy eye, touching one's nose, or lifting one's leg with one's hands. The goal of the action is implicit in the attempt; one just tries to compose a sentence; one does not do so by means of a limited stock of mental actions. When one tries to recall a face, there is no flicking through a mental book of mug shots—one just tries to recall a face.

This is how physical action would appear to our new subjects. They just try to raise the sun; there is no intervening mechanism of which they are conscious. If this is so, one has to question whether such a being could ever possess the concept of things existing apart from itself. If it can attempt to raise

the sun, the current question is whether it could realize that the sun was different from itself.⁸⁵

Granting such creatures the concept of action is not something that should be done without question. More specifically, it seems that any concept that the creature may possess would not be that of *action*, and therefore active experience—the experience as of action—would not be available to it. It might be worth noting in this context that the above does not rule out completely the idea of psychokinetic activity. We might be able to make sense of the notion, but this would only be due to our prior grasp of the appropriate concepts through our familiarity with bodily action. If this is so, the above would also suggest that belief in some mechanism is required even in cases of psychokinesis, else we should end up in the position of the unfortunate creatures above.

The above case tried to press us on the requirements for a mechanism for physical action of which the subject is aware (i.e. a body); the second kind of problematic example concerns the requirement for complexity noted above. It was suggested that we could only make sense of the idea of action where there was a complex interplay between perception and action; where, for example, actions were altered and refined in accord with the subject's perceptual intake. Against this, it might be objected that there could be a being with an extremely limited repertoire for action, which would allow for just the possibility of ongoing deception that did not seem to be present in our own case. To put it bluntly, if a subject is only capable of a few actions, there is a far greater chance that it could be mistaken about whether it was the source of the actions or not. In particular, if it was only capable of a limited number of basic actions and was unable to combine these to form substantial or complex actions—if it was unable to aim at anything other than the performance of these basic actions—it would seem as if it could systematically be mistaken. Thus, the possibility of active experience without action seems to arise again.

⁸⁵ Another way of approaching this is by regarding it as pushing the problem of dualist interaction out into the external world. How can we make sense of the idea that the content of an intention or desire should immediately connect with the structure of a specific event?

This case is far less troublesome than the previous. Standardly, we distinguish between human action, animal action, and mere physical response (plants, machines). The first is usually taken to involve a degree of conceptualization that is not found in the second, even though we do wish to hold that the second is a form of action in some sense. Animals can forage for food, hide, stalk prey, play, and so on. Such behaviour involves the complex interplay between activity and perception that we would expect in action. Note also that animal behaviour is composed out of bodily movements while not being reducible to these, as was so in our own situation. The third category, that of physical response, is not a form of action at all, however. Such physical change cannot correctly be called an action of any sort: there is no ongoing subtle adjustments made in response to environmental stimuli; there is no range of goals that we can conceive of the object aiming at, and so on.⁸⁶ The distinction is a familiar one, and I will not labour it.

To hold that there could be a creature capable only of performing a limited range of bodily actions (and only performing them as such) is just to mistake mere mechanical response for action. To act is to do more than perform a limited number of movements on the occurrence of certain stimuli (or even at random). Of course, there will be cases where it starts to become unclear as to whether we are in the presence of agent or automaton, but such borderline cases will come at a level far lower than that with which we are interested in. Problem cases are most likely to occur at the border between animal or nonconceptual action and mechanism, and at this level there are bound to be other good reasons for denying the possession of spatial concepts. That is, higher level animals might well meet some of the necessary conditions for spatial awareness (they might have active experience), but there will probably be other reasons for denying that this is true of insects and the like (a lack of suitably complex neurological structures, etc.). Whether or not a fly or a prawn acts is not going to be of much relevance to the current project.

⁸⁶ Cf. Armstrong (1993), Chs. 10 and 11.

It is unlikely that there could be cases where the degree of complexity was sufficiently limited to the extent that it allowed the possibility of systematic error in. Even the most rudimentary creature capable of true action will exhibit such complexity that mistakes of this sort would not normally arise. This is just because of the considerations discussed above concerning the role of intention and the ongoing feedback and adjustment loop that we find in action. If behaviour does not display this complexity, it is simply not action.

Hopefully these considerations should have gone some way to demonstrating that there is no possibility of active experience without action over the entire course of a subject's experience. There is, however, still one apparent possibility that we have not addressed. In the preceding, I left open the possibility that massive coincidence might lie behind a subject's experience of action. The subject's intentions play no role in the causing of the desired events; instead, the events merely cohere in every detail with the subjects intentions, right down to the apparent movements of the subject's body (apparent body, anyway), including all the slight alterations and adjustments that one makes while performing any action. All of these movements just happened independently of the subject at the time desired by her. Can we make sense of such a possibility?

It need not be stressed just how implausible this seems. Nevertheless, there is nothing yet that will allow us to rule it out. The considerations of the preceding sections should give us some idea of just how unlikely such a scenario is; still, this is not enough to show that it is logically impossible. Given the existence of cases such as (1) and (2) above, it is not entirely clear that systematic error caused by massive coincidence is not possible. I want to briefly consider some ways in which the problem might be tackled. The following, however, is far from complete, and we may in the end choose to acknowledge the possibility that some degree of revision in our beliefs about the scope and extent of our activity is warranted.

We have to be clear about what is possible and what is not here. In order to do this, there are a number of distinct cases that need to be considered. Firstly, there is the scenario in which all apparent actions of all subjects are to be

explained by coincidence. There is no true action here. Second, there is the case in which large parts of the active experience of all or most subjects are caused by chance, while the rest is to be explained by conventional science. We are not always wrong, only regularly wrong. Thirdly, there is the case in which all alleged actions by a minority are explained by coincidence, while the rest of sentient life acts as normal.

The first case is the most troublesome, and the most extreme. There is no action as we conventionally understand it; the world is just constructed in such a way that it falsely appears to subjects as if they act. All 'action' is on a par with that in example (1) above.

Can we make sense of this? It certainly appears as if we can, but we need to bear in mind that this is against a background of our present grasp of science, a grasp based upon active experimentation in which physiology is a genuine and understood branch of science. Lacking such knowledge we would surely be unable to make sense of the idea that all beliefs about action were erroneous; we would have no grasp of true action with which to contrast the coincidental case. Were we to lack such an understanding of the workings of the body, as we must if coincidence is to explain all actions, then it is not obvious that we could employ any theory on a par with modern physics. For the body is a particularly fundamental part of the physical world—it is the part of the world that is my presence in the world, with which I interact with those other parts external to me. If this was indeed the case, then the subjects would either have some theory in play with which to explain the workings of the world or they would not. If they did not, then there is no room for a notion of action, connected as it is with the notions of cause, force, mass, and the like. Let us allow, then, that an alternative science is in play. Again, there are two options worth considering: one theory which attempts to bring the body under the same laws as the rest of the world; and one which makes no attempt to encompass the workings of the body within its remit.

The worst case scenario is that the subjects, as creatures apparently able to act, develop a scientific theory that explains the behaviour of bodies other than

their own. It explains what happens when two physical objects come into contact with each other, how motion can be initiated, and the redistribution of energy, etc. In other words, they have a reasonably detailed physical theory. However, when they turn their attention to the workings of their own bodies they are horrified; the rules that relate to the external world seem to apply here, in that electrical activity occurs, physical lumps of matter come into contact with other physical lumps of matter, and so on, but they seem to do so in random ways that allocate no role to intentions, or action. It might even be the case that the causes of bodily movements tend to originate outwith the body. How can this be?

How should such creatures react to such a discovery? Basically, they might take any of the approaches that we take to the problem of mind/body interaction: they might regard physical science as stopping at the limits of the body (i.e. adopt the second sort of theory above); they might hold that the mental supervenes on the physical; they might hold that we should posit two different levels of explanation, one for physical objects and one for subjects; they might even investigate the possibility of disjunctive mechanisms underlying action, and so on. What they would not do is give up their claims to action. One's belief in one's own agency is more basic than one's subscription to any particular physical theory; were the two to come into conflict, we would give up the physical theory and hold out for another that fitted our intuitions on the matter. Acknowledging that some of our bodily activity might not be brought about by our intentions (as in the above deviant cases) is one thing; allowing that all action is of this sort is another entirely, and this is not a route that we would be willing to take.

The second kind of case, where much but not all action can be explained in the normal fashion, might be approached in a similar way. Depending upon the scale of the problem, we might either resort to looking for alternative scientific accounts, possibly even posit disjunctive mechanisms to explain action, or we might be willing to give up our claims of activity in a limited number of cases. I suspect, though, that we would always recoil to a position that claimed that we did act, but was silent on the matter of how this was achieved and how it could be reconciled with the rest of physical theory.

The third case is the most interesting one in the present context. Imagine that we come across a subject whose ‘actions’, upon closer investigation, all appear to be caused by accidental bursts of static and the like. How improbable this is cannot be over-stressed; but it does appear to be a genuine possibility given an acceptance of (1) above.

Such a subject would strike us as a wonder, a genuine miracle. We would be unwilling to admit that he never truly acted; we might instead try to claim that he must have some control over the static outbursts, that he employed some unique causal process in his acting. Still, we might in the end acknowledge that we were in the presence of coincidence on a breathtaking scale, and that the subject never really did act. The matter is not clear-cut, though—it is unlikely that all would accept such a conclusion, particularly if the subject continued to behave as if he were acting in a normal way. Such a case would stretch current linguistic usage to breaking-point—we might well end up with revised notions of *action*, *cause* and so on as a result of such a case.

These considerations are far from decisive. What I hope they suggest is that our acceptance of massive coincidence should not be unquestioning. Even if we allow that there could be active experience without action in such cases, we have to acknowledge that the chances of such cases occurring are extraordinarily remote, and this should be borne in mind throughout the rest of the dissertation.

§1.5 Reconstruction of the fable: the Weather Watchers revisited / revised

Having concluded our look at the forms of control and constraint possible in thought and experience I want to return now to the discussion of Galen Strawson’s treatment of action and activity left open in §1.2.1 above. I think that the above considerations lead us to a number of reasons why we should reject Strawson’s position. I want to focus upon his stance concerning mental activity here, due to the fact that his discussion of physical action seems somewhat less rigorous. In particular, the comments concerning mental illness, etc., at the end of §1.3.4 above suggest one reason why we should hold that the agent is active in M2r-type cases. Just as unwelcome M3r-type thoughts and experiences (such as

a schizophrenic's hearing voices) originate from within, so do M2r-type thoughts and experiences. To view them as outwith the control of the subject as Strawson does would be to lump them in with M3r-type cases (as Strawson would acknowledge, I think), and this will lead us down a troubled path. The problem arises through the combination of treating such thoughts as on a par with M3r-type thoughts—they would not be under the subject's control (or: he would not be active in their formation)—while acknowledging that they are in accord with the subject's (long term and / or immediate) goals, feelings, beliefs and general mood. How then, if we were to take such a position, should we view such thoughts? As happy coincidences, surely ('I was not active in any way, yet these appropriate thoughts just appeared in my head!'). This would seem to be the position that Strawson would have to take with regard to the Weather Watchers, given his treatment of what is to count as active. The undeniable distinction between (roughly) not-consciously-willed-but-appropriate thoughts and pathological thoughts that I explained in terms of the difference between M2r- and M3r-type thoughts would have to be accounted for by claiming that some of these unpremeditated thoughts were useful and appropriate whereas others were inappropriate and counter-productive—yet this is not the way in which we normally view this distinction. Mental illness, after all, is not just a matter of mere practicalities.⁸⁷

One also ends up with a 'homuncular' view of personhood of the type noted above if this path is followed. The subject only seems to be responsible for generating intentions on such an account, as it is only conscious intention-involving M1r-type thoughts that are truly describable as actions according to Strawson. All other thoughts are not acts of the subject. Consider the following diagram:

⁸⁷ Cf. the discussion of the distinction between B2 and B3 activity in §1.2.2. The points made concerning this distinction hold equally well in the present instance.

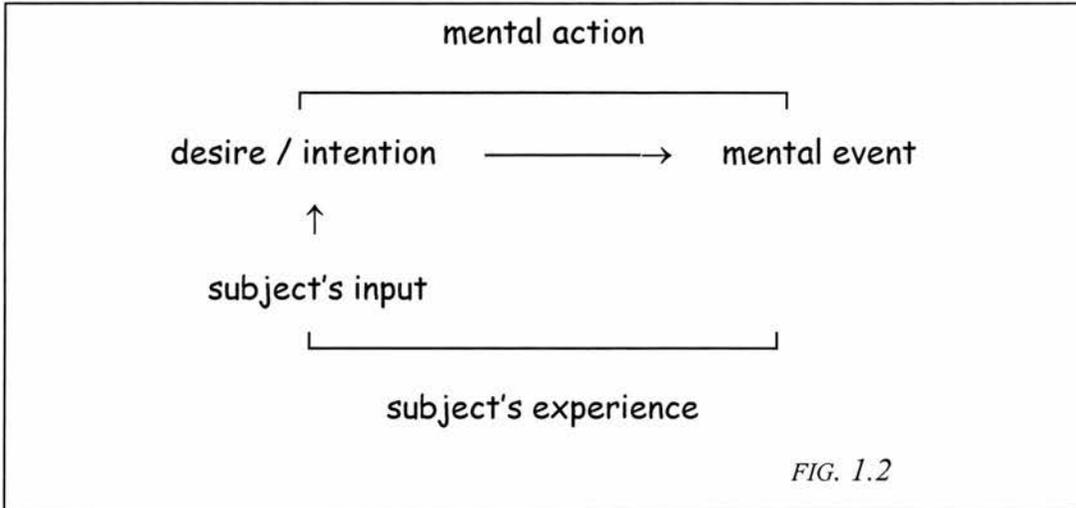


FIG. 1.2

This seems to represent Strawson's view of mental action, with the subject's active input only coming at the level of the intention involved. Of course, the subject, Weather Watcher or otherwise, will experience all the other sorts of mental events available—he or she will just be the passive recipient of such thoughts, with no input whatsoever. This seems to suggest a picture whereby the subject is only part of the organism as a whole (the mental events, after all, are not created outside of the organism), with only one function to fulfil, namely the generation of intentions. The key point here is that on this view thoughts are things that *happen* to one, not things that one *has*, and this simply does not accord with our standard view of the relationship between thoughts and the subject.

It is hard to see how a supporter of Strawson's position might try to avoid this conclusion. Even if they attempt to do so, there is another problem awaiting them. Say that (with Strawson) one wished to view M2r-type thoughts as outwith the subject's control; then one might try to reject the homuncular view by attempting to maintain some distinction that is on a par with the M2r / M3r distinction (without holding that the former are under the subject's control). This might avoid the counter-intuitive treatment of mentally abnormal thoughts noted above. Such a line might be achieved by claiming that of course one has all of the thoughts, etc.; however, one can only influence certain ones. The emotions might be viewed in just such a way for example. All M1r- and M2r-type

under the active control of the subject. Strawson states that such thoughts involve a deliberate “act to generate material”.⁸⁸ The latter sort just ‘come to’ the subject (but not from anything that should be viewed as external to the subject, lest we end up with the above problem again), whereas the second are caused by the generation of an intention by the subject. To remind ourselves of what Strawson says of these, they include “nearly all of our thoughts”, which “even when they are appropriate to our situation and our needs as agents, action and intention usually have little or nothing to do with their occurrence”.⁸⁹ So, the distinction seems to be that one sort of thought is generated by us whereas the other just comes to us (as moods might).

However, even this distinction cannot hold. We have to look at the place of the intention here. Where does this come from? An ‘act to generate material’, after all, is a mental event. Now, either it just arises, or it is preceded by some other mental event. If the former, then how does its occurrence differ from that of M2r-type thoughts? After all, these just arise in rough accordance with our general aims and desires, which is precisely what seems to be the case with the intention here. If we wish to treat the intention as fundamentally different from other thoughts then we might wish to see it as the result of some other event. Yet if we take this latter approach the same problem will arise for this event, and so on ad infinitum. The only other justification that might be given for treating the premeditated intention as different from all other mental events (other than merely asserting an ontological difference without giving any grounds for this) would be that it arises from the will, whereas the others do not. Yet to do this would be to retreat to the homuncular position discussed above.

Despite the fact that bodily activity will be of primary importance in the following arguments, there are reasons why I have focused upon mental activity here. Firstly, Strawson is not willing to grant the Weather Watchers anywhere near the freedom with physical action that he does with mental action, and this suits us just fine in our attempt to examine a suitable counterexample for the present thesis. For the sake of a consistent account of activity which draws the

⁸⁸ G. Strawson (1994), p. 253.

⁸⁹ *ibid.*, p. 253.

appropriate similarities between mental and physical varieties, though, we required the category of M2r-type actions. Without such a class of actions, any account of activity built along the lines advocated by Strawson is bound to fail for just the above reasons.

It might seem that to allow the Watchers mental, experiential control would threaten the following arguments. They will be able to exercise some influence over the content of their experience, and it seems an open question as to whether such control might suffice to make spatial concepts available. §1.4 above, though, should suggest that any mental, experiential control they might have will be fairly minimal in the absence of physical control; they will not be able to psychokinetically act upon their environment for instance. We will see why all mental control is insufficient for spatial awareness in the following chapters.

How, then, should we regard the Weather Watchers' situation? If they are to provide a suitable case study for us, we have to treat them as unable to exercise any physical control over their experience—unable, that is, to have any B1- or B2-type behaviour. Their story has to be altered to read as follows:

The Weather Watchers are a race of sentient, intelligent creatures. They are distributed about the surface of their planet, rooted to the ground, profoundly interested in the local weather. They have sensations, thoughts, emotions, beliefs, desires. They possess a conception of an objective, spatial world. But they are constitutionally incapable of any sort of bodily control, i.e. they are completely incapable of exercising any influence over the course of their experiences by physical means. They are not even disposed to attempt to control their experience in any way.⁹⁰

If we allow the above alterations to Strawson's thought experiment what we are left with is an apparent counterexample to the present thesis, in that the creatures that we are presented with lack all active experience. They cannot scan the horizon, cannot reach out to feel the rain, etc., whether or not these acts were premeditated or not. Is the existence of such a form of life possible? In the following, I will attempt to show that it is not.

⁹⁰ This is derived from the passage from G. Strawson (1994), p. 251, quoted at the start of the present chapter.

Chapter Two: Frames of Reference

In this chapter I look at the various ways of thinking about space available to the concept user. In particular, I use the notion of a frame of reference to distinguish several different ways in which a subject might reflect upon and experience space.

§2.1 Ways of regarding space

As creatures with significant conceptual capacities we are able to think about places and objects in a number of different ways. I can think of a place in terms of my plans and goals—that I intend to be there in an hour and must take a certain route to get to it—or I can think of it in terms of the position of another object—fifty metres north-northeast from the monument—or even as one of the many places that I see represented on a map in front of me, to give but some examples. In contrast to the first case, in which the place is located for me in terms of my own location and my beliefs and desires concerning my future location, the last case merely represents the location as one place amongst many, with no such connection to myself or to any planned action of mine. Different ways of thinking about places will also affect the answers that we give to such questions as: “where is x ?”; “where am I?”, and so on, as such questions can be correctly answered in any number of ways. The way in which we regard places is also relevant to such questions as “is y moving?” since what we regard as having moved will depend upon what we regard as stationary. This in turn, as is widely recognized, is not a straightforward empirical question. Objects are only in motion or stationary *in relation to something else*; when we ask whether something is in motion or stationary we ask whether it is so with regard to something else, something that is assumed to be—or stipulated as being—stationary. Some such ‘stationary’ reference point is generally assumed in conversation and thought, rather than stated or considered explicitly; e.g. when it

seems to you that the car we have just stepped out of is rolling slowly, almost imperceptibly, away, you ask me, concerned that I have left the handbrake off, “is the car moving?”. Now, it would be irrelevant for me to say: “of course it is—it is travelling around the Sun at roughly n miles per hour with the rest of the planet”. This would, of course, be a perfectly true statement; but it is not an answer to the question that was asked. The question was asked taking the street as stationary (or the local surface of the Earth). This is not always the case, though. If while driving I ask you to stop a pen sitting atop the dashboard rolling around I do not intend you to throw it out of the window. Instead, I mean you to stop it rolling around in the car. It is the car that provides the background against which that judgement is made.

The background to such discussions need not even be the subject’s immediate environment, be this outside or the inside of a vehicle. It is perfectly possible to think about places in a way that is not immediately connected to one’s locality. Should I be talking to a friend by mobile phone or radio while the pen is moving inside the car and I comment on this, my friend will be perfectly capable of understanding what I mean despite not being in the car himself. In fact, it is perfectly possible for him to adopt the car as his reference point for the rest of the discussion. He could talk of “that building that just went past on the right”, and so on, if he was aware of the car’s present location, direction and approximate speed.

Such backgrounds provide the locus for the spatial *frame of reference* that is being employed. Such frameworks permit the subjects employing them to see objects and locations as connected to each other in a unified spatial system. They provide the means by which we locate objects and differentiate places, and also the background against which we judge what is and is not in motion. Some of these frameworks let us see other locations or objects in terms of a central object or location, the significance of which will vary depending upon the type of framework employed (see §§2.4-2.7 below). The meanings of the various terms used here are not far from those found in physics and the philosophy of science. Just as we might consider different frames of reference centred upon spacecraft travelling (either at a constant velocity or accelerating) at different speeds to

highlight the difference between Newtonian and relativistic theories, so we can consider frames centred upon different objects to bring out various issues related to the current thesis.

It is worth stressing that as we are using the term a frame of reference is a *conceptual* framework (call this ‘type 1’). It is at the personal rather than subpersonal level, and relates to the ways in which a rational subject can grasp and express thoughts about areas of space. This is connected to the forms of experience that a subject will be able to have, as will be discussed in the following section. Thoughts and beliefs at this level must have truth-values and semantic content—they must be able to stand in logical and rational relations with other thoughts, beliefs and experiences. Being able to successfully manoeuvre in a spatial environment is not sufficient to ascribe such thought to a creature—we are not merely concerned with what might be called practical animal thought, which involves no semantic or linguistic structure, no inference or rational reflection of any sort. Possession of a fully *conceptual* spatial framework involves the ability to have non-practical thoughts concerning locations at which one is not present, or thoughts about one’s current location as it was in the past, and so on. It involves being able to draw inferences based upon one’s beliefs about locations, and the objects therein. Of course, the Weather Watchers will not be able to actively reflect upon spatial states of affairs, but if they are to possess concepts at all then they must have a distinction between rational inference and irrational sequences of thoughts. Not any two sequentially-occurring beliefs are connected via logical inference, and the Watchers must have some grasp of this difference if they are to have conceptual thought at all.

Used in this way here, the term ‘spatial frame of reference’ differs in meaning from the usage found in much cognitive science and developmental psychology, whereby it is possible to talk of the frames of reference of preconceptual infants and animals (‘type 2’).⁹¹ This latter usage seems to concern the ways in which an organism viewed as a physical information-

⁹¹ Cf. The works of developmental psychologists such as Linda Acredolo (cited in Campbell (1994b) (see fn. 3 below)) and John O’Keefe (O’Keefe (1993)).

processing system can deal with data (e.g. sensory input) pertaining to the external, spatial world (more on this in a moment). There may be some ambiguity when the present usage is compared with that of those philosophers overly influenced by such disciplines—we will look at some potential areas of confusion below.

In this second kind of case, the phrase ‘spatial frame of reference’ might be employed in order to indicate the role of certain types of subpersonal functional components in the brain. For example, it might be hypothesized that in the case of a certain creature, there is a functional module within its brain whose role it is to process all the various signals from the different senses and construct a virtual ‘map’ of the creature’s immediate environment. This ‘map’ is not available to the creature via introspection or whatever—it is not at the personal (or ‘creatural’) level at all, but at a more basic level—only serving to ‘inform’ certain of the creature’s qualitative experiences (it underlies the fact that experience comes to the subject structured in certain ways). For instance, it might be responsible for the multi-dimensional nature of vision, or it might serve to present both visual and tactual experience as being of the same ‘world’, i.e. to unify tactual and visual experience. Its function would undoubtedly be practical—by allowing the creature some grasp of its spatial environment, it would increase the likelihood of its finding food and avoiding hazards. Nevertheless, we could not ascribe spatial concepts to such a creature just on the basis of its successful behaviour in space and its possession of a certain sort of functional, neurological module. Obviously this usage is not limited to concept users; it would be just as reasonable to expect to find such a neural component in frogs as in people, for example, or possibly even in robots.

Such a usage of the phrase ‘spatial frame of reference’ is clearly not philosophically uncontentious. Describing such a neural or mental component as a ‘map’ or as a ‘representation’ might appear to some as a category error—it would be to ascribe intensional content to something incapable of having such content. It would be to commit the alleged mistake that Searle finds in much contemporary philosophy of mind, particularly in broadly functionalist contexts. We can find examples of this usage in the work of many of the cognitive

scientists and developmental psychologists whose work has influenced so many philosophers in the field. Of course, this is not to say that the psychologists are committing this alleged fallacy. It is perfectly conceivable that they are using a perfectly acceptable notion of ‘representation’, and that the error (if there is one) lies with the philosophers who wish to use their research in inappropriate ways.

It is all too easy to connect, or even identify, the above two types of spatial frameworks (to give us a ‘type 3’ framework). One of the most important lessons that the naturalistic trend within much recent philosophy has taught us is that we should not assume that we can look at our mental lives and rationality in complete isolation from our place in the living world, our physical make-up and history. This is a lesson well-taken, but it is often tempting to go too far in this respect, and come to identify logical necessity with physical necessity or even with the empirical fact of the matter, or lose the distinction between the rational and the physical domains. In the present context, it is tempting to identify the spatial framework that one employs within rational thought with some empirically postulated, subpersonal component that seems to play a similar role in the formation of one’s experiences, etc.⁹² This, however, would be unjustifiable, for a number of reasons. One’s thought may well display certain characteristics whose possibility might seem best explained by the possession of a particular subpersonal module, but it is a general truth that a feature occurring at one level need not be caused by a feature at a lower level with the same structure or features. This is one of the main claims lying behind connectionist models of the mind, for example. In the present context, much work in cognitive science and artificial intelligence has succeeded in demonstrating that a creature or robot can successfully move around its environment without such an internal map. In a recent book, Andy Clark discusses such cases in detail, and disputes the claim that complex internal, subpersonal, map-like representations of objective space are necessary for a creature to successfully act in an objective space.⁹³ We would be well-advised to draw the same moral as he does—that

⁹² See McDowell (1994a) for arguments in favour of maintaining this distinction. Campbell for one has been accused of neglecting it in his treatment of the attention (Campbell (1997)) by Michael Martin (Martin (1997)).

⁹³ Clark (1997).

spatial activity does not require possession of a certain sort of subpersonal map or framework. And if this is true for simple creatures and machines, then there seems no a priori reason to assume that it cannot also be true in the case of higher-order creatures capable of conceptual thought, be they human or Weather Watcher. Also, if we were to identify absolute frames of reference with such subpersonal, internal components this claim would have far greater philosophical significance than it actually has. For this reason alone we should draw a line between the two sorts of frames of reference mentioned above, and not attempt to assimilate them into a third, hybrid type.

Another reason for maintaining the distinction between types of frameworks is that identifying them fails to respect the personal–subpersonal distinction. Of course, there is the issue of whether we can maintain a working distinction between the personal and the subpersonal, and the fact that this distinction is not universally accepted may find such a point falling upon deaf ears. I believe that we can, but I will not argue for this here. I will, however, try to avoid assuming the case either way, and I will try to achieve this in part by sticking very clearly for the most part to the domain of conceptual metaphysics, and making it explicit when I am considering anything that might be thought of as a subpersonal system of some sort. Before moving on, it is worth agreeing that the fact that many of the terms are shared by the relevant branches of philosophy and psychology (or, more generally, cognitive science) does indeed reflect a connection between them. But agreeing that there is a connection falls short of an admission of identity, and we would do well to bear this in mind when citing such authors. The basic moral is that we have to keep our usage as free as possible from such empirical, psychological connotations.

In this chapter I want to approach the central issue by considering the different ways in which a subject might be aware of, or able to think about, space. One way of doing this is to consider the different frames of reference that are available to subjects such as ourselves. John Campbell, in the first chapter of *Past, Space, and Self* gives a thorough account of all the various possible spatial

frameworks.⁹⁴ However, Campbell's use of the term seems to sway somewhat between our use, relating to different conceptual frameworks, and that of the developmental psychologists whom he frequently cites, resulting in the above sort of hybrid. For instance, he opens the chapter by commenting that "[t]here is a distinction that philosophers and psychologists have tried to draw between different ways of thinking about space, about particular spatial regions".⁹⁵ Later in the same chapter he discusses within the same context the writings of such developmental psychologists as John O'Keefe. Yet consider this passage from O'Keefe:

there were several ways in which the brain represented space. Some of these representations were egocentric, locating entities within spatial frameworks fixed to body parts ... [these] neural representations of space were to be found in several different parts of the brain, most notable in neocortical lobes ... [etc].⁹⁶

O'Keefe is discussing here ways in which the *brain* represents space, not ways in which a subject might think about space. Another passage from the literature also serves to highlight this disparity. In their introduction to the section 'Frames of reference' in Eilan et al (1993), which contains both the O'Keefe article and Campbell (1993), Bill Brewer and Julian Pears state:

Pick's concern is very much complementary to [Campbell's]: it is with the developmental trajectory of spatial representation in infants, in particular with respect to the egocentric / allocentric distinction. The standard picture here is of at least three developmental stages. First, the capacity for coding particular egocentric vectors to salient landmarks, which are suitably updated with the infant's relative movement. Second, the capacity to add and subtract such vectors to provide extended route-like knowledge. Third, the capacity to transcend personal involvement, and move from the egocentric to the allocentric, with full-blown configurational spatial knowledge.⁹⁷

If you ask infants to add and subtract vectors the chances are they will be unable to understand what you are talking about, never mind being able to perform the task. This, of course, is no criticism of the work of the developmental psychologists: it is instead a sign that they are looking at matters

⁹⁴ Cf. Campbell (1994b); cf. also Campbell (1993). The former, later book contains much of the content of the latter article. I will not in general refer to the earlier article for this reason.

⁹⁵ Campbell (1994b), p. 5.

⁹⁶ O'Keefe (1993), p. 43.

⁹⁷ Brewer and Pears in Eilan et al (1993), p. 29.

other than conceptual capacities, as philosophers would standardly understand the term. The empirical study of the psychological and neural subpersonal systems that underlie a creature's spatial abilities—to move about in and interact with an external world, to experience and think about such a world—is an important project and one worthy of philosophical attention, but one should be wary of allying oneself with it too closely. Without wishing to labour the point, empirical theories have a tendency of being empirically disputed or disproved, and this is (if we remember Popper)⁹⁸ precisely what we should not expect to be the case with conceptual metaphysics.

Nevertheless, as we shall see, all of the frames of reference distinguished by Campbell, when appropriately construed, are available to our project, and depending upon the circumstances we may employ one or another. I will therefore feel free to use the various distinctions that he employs, subject to the above caveat. However, the question that we must now consider for each framework is whether it is conceivable that there could be a subject who employed that scheme as his fundamental, or immediate, framework.

§2.2 *Fundamental frameworks & experience*

What we have to consider is the possibility that a subject could possess the ability to think spatially without being able to act within the space thought about. If he is to do so, then a spatial framework without any essential connection to action must be employed. As we have noted, there are several different frames of reference that are available to us, several different ways in which we might think about space. A number of these appear to presuppose no activity on the part of the subject, as will be discussed below. The question is whether any of these might be available to a completely passive subject.

The way I propose that we approach this issue is to consider whether a creature would be able to successfully employ any one of the frameworks in isolation from the others. To this end I want to introduce the notion of a *fundamental framework*. A subject's fundamental framework is the framework without which he could not employ any other. This notion, it should be stressed,

⁹⁸ Cf. Popper (1972), Ch. 1.

is merely a dialectical device; I am not claiming that for all creatures capable of spatial conceptual thought there actually will be one way alone of thinking about space—one cluster of spatial conceptual capacities—that it is more ‘natural’ for that creature to employ. The reason why such a concept might be useful is that it allows us to examine each of the various ways in which a subject might think spatially in isolation from the others. If it could be shown that even one of these frameworks could be successfully employed by a passive subject, then there can be no necessary connection between spatial awareness and agency. After outlining the different frames in the remainder of the present chapter I will attempt to argue in those chapters following that all such frameworks are inaccessible to the passive subject.

The motivation behind this approach is as follows. The frameworks with which we are concerned are *conceptual* frameworks—they are clusters of interdependent concepts. It seems feasible that there could be creatures for whom some of the frameworks—some of the ways of thinking about space and spatial relations—are available, while others are out of reach. Certain of the frames of reference might involve a greater degree of conceptual sophistication than the rest. A subject might be able to think about space by employing a frame centred upon its own body and think of all other places in terms of this, for example, while not being able to think about space in the detached way an architect or town planner can.⁹⁹ If this is indeed the case, then to fail to distinguish between frames, and approach the issue by suggesting that a being must be able to employ *all* non-egocentric frames if it is to think spatially would be to stack the decks against our hypothetical passive subject. It is plausible to require only that the subject should be able to employ any one of the non-egocentric frameworks (one of those without an essential connection to action) if it is to be capable of spatial thought. The use of the notion of a fundamental framework avoids the problems that would be caused by an all-or-nothing approach to the issue, or any approach that failed to discriminate at all between different modes of spatial thought. Such modes of thought will be intimately

⁹⁹ We might consider in this context the debate concerning whether we can identify a distinct absolute frame of reference (see §2.4 for discussion of absolute frames). Cf. Brewer (1994).

connected to the ways in which the subject is able to experience space (more on which in a moment).

The point can be made this way. Given that frameworks are ways of thinking about space, places and spatial relations, what we want to consider is whether or not beings could exist who were each able to think about space in only one of the ways. If this could be established—if it could be shown that some of the frameworks were independent of each other—and it could also be shown that at least one of these ways had no connection to any form of activity or control, then it would appear that there is a frame of reference that would be suitable for employment by the Weather Watchers, and therefore that Strawson's thought experiment is coherent and possible after all. For this reason we will try to treat each framework as a fundamental framework and see if it is conceivable that a subject should be able to think about space in that way and that way alone. For the rest of the present chapter, starting with the following section, I want, following Campbell's lead, to give a thorough account of all of the possible types of framework. I approach this via a series of distinctions that should hopefully serve to show that the list is indeed complete. In the following chapters I attempt to show that for each framework, it either requires that the subject should be active to some degree, or it is unable to play the role of a fundamental framework, in that it presupposes the possession of another frame of reference.

As mentioned above, we would expect to find some correlation between the ways in which an individual is able to think about space and the ways in which he or she is able to perceive space. Much will turn upon the role that experience of perception and action has to play in the following; for this reason it is worthwhile addressing the matter of why such a connection is to be expected.

One way to approach this issue is through the following example that might serve to bring out some intuitions on the matter. Consider two of the ways of thinking of a place mentioned in §2.1 above: namely as the destination of a present journey; and as one place on a map amongst others. These illustrate two different ways of thinking about space as a whole, and will be discussed more fully in the following sections. It would appear intuitively that a creature with

rather more rudimentary conceptual capacities than those possessed by most humans (perhaps a young or uneducated human) may well be able to think of a place in the first way but not in the second. Employing the latter conception requires the ability to think about places that have no immediate physical significance for the subject—places that do not feature in the subject’s day-to-day life, nor in the present course of the subject’s experience. A being lacking the ability for substantially conceptualized thought would be unable to think in such a way, as it amounts to the ability to contemplate the external world in a way that bears no immediate relation to the part of the world that presently features in its perceptual experience or in its actions and intentions. Such thought is fundamentally different from the kind of thought that is employed when one considers one’s own place and (physical) concerns in the world, which would seem to be the only form of spatial thought that a being lacking in well-developed conceptual capacities could employ. Thinking about space in a ‘map-like’ fashion—that is, thinking about it in a way that is distanced from one’s own place and concerns within it—requires a significant conceptual repertoire, and this is precisely what such creatures lack.

Turning to the issue of perceptual experience, one reason that we might expect to find a connection between the ways in which a subject can think about space and its ability to perceive space might come from consideration of practical, evolutionary matters. We have good reason for expecting that any creature who could only think about space in a way that was totally unrelated to its form of life would not survive for very long in evolutionary terms. Should it be possible, for instance, that a creature was able to think about space in only the second of the above two ways—i.e., should they only be able to consider space in an abstract, ‘map-like’ way—then even if they had experience that was as (relatively) phenomenologically rich as our own we would not expect them to survive for very long in their environment, no matter how pleasant that locale might be.¹⁰⁰ This is because such ‘natural born cartographers’ would be unable to connect their conception of space with the day-to-day business of being a

¹⁰⁰ I do not believe that such a form of life is even in principle possible. I attempt to show why this might be so in Chapter Three below.

living, embodied creature—hunting for food, searching for shelter, and so on. We need only reflect upon the fact that thinking about space in this way involves thinking about all places as of equal status—no place is more important than any other—whereas in everyday life the neighbourhood in which we are presently located is of much greater importance than any other place, as far as our continued existence goes. Learning that there is a fire at some place illustrated on a map may or may not be worrying, but learning that there is a fire *here* is far more alarming. Our continued existence relies upon our ability to perceive certain locations as of more relative importance to us than others, and this is precisely what the imagined cartographers cannot do. Similar reasons hold for expecting a subject's conception of space to be intimately connected to the sensory modalities they possess and the resulting forms of perceptual experience available to them. Were a life-form able to think about space but completely unable to perceive or react to things in space *at all* we would not expect to see it around for a very long time. The situation that such creatures would find themselves in would be that of a society of blind and tactually-insensitive beings. This would not seem to inspire much optimism for such a creature's continued existence.

Nevertheless, such empirical reasons are not decisive—they do not rule out the possibilities entirely. It is not yet obvious that the existence of such a race of creatures is impossible; we can imagine that they might exist on the sea-bed attached to rocks, feeding off the plankton that drifts by, lacking any predators, for example. The cartographers in the previous example might also find themselves in such a situation; and if this was so, then their continued existence might not be so evolutionarily improbable after all. This is because in the present situation spatial perception and the relevance of spatial thought seem less of a requirement for continued existence than in our own case. In both instances, however, I do not think that such a case is really possible, but I do not want to pre-empt the discussion in the following chapter by spending significant time on this issue at present. It is, however, worth briefly mentioning one other reason why we might think that such a scenario as the latter is not only unlikely but

necessarily impossible. Why must a fundamental framework have a connection with both thought and experience?

The question at hand is whether we can make sense of the idea of conceptual spatial awareness without *sensory* spatial awareness. One putative parallel case might come to mind here. The blind can be said to be aware of colours in some sense—they know that such things exist, that different objects are differently coloured, etc., even if it is beyond their abilities to grasp what exactly they are or what colours are present in their immediate environment—but they have no sensory awareness of colour. Their concept of colour is parasitic upon the concept possessed by the normally-sighted, but it is a viable concept nevertheless. Could there be a parallel case involving space? If it could be shown that individuals could possess spatial concepts and yet be unable to apply these in perceptual experience, the alleged connection between spatial concepts and experience would be severed. Given that precisely this connection is presupposed or argued for by many influential thought experiments, including P. F. Strawson's discussion of the 'auditory universe',¹⁰¹ the consequences of such a conclusion would be substantial within metaphysics.

We can approach this issue via the underlying methodology in Strawson's thought experiment. The role that Strawson grants to experience here demonstrates his use of the above assumption. This highly influential thought experiment concerned whether a being with only auditory experience—with only the ability to hear—would be able to arrive at a conception of an objective, but *non*-spatial world. It would not be a spatial world, according to Strawson, because the subject lacks all outer (i.e. spatial) sense, namely sight and touch, of which space is the form according to Kant. As Evans points out, Strawson is not rejecting the Kantian line here; instead, he argues "for a slightly weakened version of that thesis".¹⁰² It is not a rejection of Kant's claim because, according to Strawson, in order for the subject's experience to count as experience of an objective world it must demonstrate many of the features that experience of the spatial world has, including allowing the subject to identify and reidentify

¹⁰¹ Cf. P. F. Strawson (1959) Ch. 2, entitled 'Sounds'.

¹⁰² Evans (1980), p. 77.

particular items, whether they be objects (as in the spatial case) or persisting sounds (in the auditory case) as existing in an all-embracing system of quasi-spatial relations. The issue was whether a creature of this type would be able to find the resources within its experience to allow it to apply what might generally be considered *spatial* concepts (such as the concept of *sameness of location*) to aspects of its experience (hence Evans' description of such a world as a "quasi-spatial world").¹⁰³ Not following Strawson's strict Kantian usage of the term 'spatial', with the connection to 'outer sense' that it brings, we can instead follow Evans in calling such a world a 'spatial world'. Strawson's main aim, then, in the chapter is to question whether such beings would be able to employ concepts of an objective world. In order to do this, he argues, they must be able to have some experience of a spatial reality, i.e. a system of quasi-spatial relations between sounds. Recognizing an objective world of mind-independent particulars necessarily involves recognizing an essentially spatial world, according to Strawson.¹⁰⁴

The main reason why colour concepts are often used as paradigm examples of concepts of secondary properties is that they are fundamentally connected to experience in several important ways, one of which (as already noted) they share with spatial concepts. That is, both spatial and colour concepts are experiential—to fully possess the concepts, i.e. to possess them in a non-parasitic way, a subject must have certain specific types of experience. In the case of colour concepts, the subject must have visual experience that falls within broadly normal levels, whatever they may be; with spatial concepts, the subject must have some form of perceptual awareness of spatial relationships. Just what this might be will be returned to below. The similarity ends there. With colour concepts, the connections to experience are not enough to prevent those lacking the relevant experience to possess the concepts to some extent or other. The blind can use such concepts but only in a way that is dependent upon the use made of the terms by the sighted (just as the profoundly deaf might be able to some extent to understand talk of 'noisy rooms' and 'a peaceful quiet'). The fact

¹⁰³ *ibid.*, p. 79.

¹⁰⁴ Evans (1980) provides further substantial and thorough discussion of this issue.

that such a use is parasitic is not, however, enough to prevent a challenge to the alleged connection between possession of spatial concepts and the having of certain sorts of perceptual experience, as even a parasitic use would pose a significant problem. Fortunately, there is no such parallel case with spatial concepts. Why might this be so?

The underlying reason turns upon the difference between primary and secondary qualities, as generally understood.¹⁰⁵ Let us note at this juncture that, unlike colours, spatial properties can be perceived through more than one sense.¹⁰⁶ The blind can understand colour concepts by treating them as concepts of secondary properties that are perceivable only with a sense which they lack. Their use of colour terms is thus dependent upon those who possess the relevant sense modality. Consider a parallel case, one with which we can all identify. If we accept that the sonar-like sense that bats possess results in the animals having certain experiences which they would lack were they to lose the relevant organs, we can imagine that there are secondary properties perceivable via this sense, just as there are with sight. Certain sorts of sound may, for example, impair the animals' ability to detect objects, rather as looking into a bright light makes it difficult to make out shapes in the vicinity. Say that it transpires that there is a species of sentient and rational aliens that we have not yet encountered, but who have been observing us. They learn English, and make contact. There are certain parts of their discourse that we cannot understand immediately, and it transpires that they are talking about properties of objects that are perceivable only via their sonar sense. We can still understand what role the terms play, even if we cannot fully possess the concepts. Our understanding of the terms would be parasitic

¹⁰⁵ I mean by this that the reason relates to differences that, as far as I am aware, all accounts of the primary–secondary quality distinction acknowledge. This is, of course, not to claim that everybody recognizes the distinction; it is not, however, my intention to argue for it here. Further reasons also arise from Thomas Reid's account of primary qualities, whereby these come as part of an interconnected theory. If one was unable to grasp one of these concepts, one would be equally unable to grasp the rest; one could not just leave a 'gap' in one's theory. Cf. Reid (1895), Evans (1980), Lehrer (1989).

¹⁰⁶ If after reflecting upon Molyneux's question one is inclined for whatever reason to believe that the blind cannot fully possess spatial concepts, we can still see that spatial perception is not limited to sight and touch by considering the possible existence of beings identical to humans except for the fact that they possess a bat-like sonar sense instead of sight. Surely such beings would be capable of spatial perception. Hearing with two ears, when coming together with proprioception, also gives one limited spatial information.

upon the aliens' usage, which is in turn dependent upon them having a certain sort of experience.

Spatial concepts are not like this. They cannot simply be understood as 'concepts of properties observable via a sense that we do not possess', i.e. concepts of secondary qualities. No such straightforwardly parasitic usage is possible. Any apparent parallel between colour concepts and spatial concepts is merely an appearance of resemblance, without any true substance underlying this appearance.

When justifying general, abstract thought experiments such as that of the auditory universe, Strawson asks "how far can we break down the connexions of certain central concepts with each other and with certain types of experience without seeming to destroy those concepts altogether?"¹⁰⁷ Such a question points to the fundamental relationship that holds between such concepts and experience. While, as has just been discussed, spatial concepts are obviously not secondary concepts (whatever particular definition of this term we wish to use), a subject must still have experience of a particular sort if he or she is to possess and employ them. We can say that spatial concepts are fundamentally experiential in that if a subject is to employ them, he must have perceptual experience that will allow him to do so. This is because spatial concepts are concepts that are primarily applicable to perceived things and relations. Any ability to think about space in the abstract that we may have depends for its existence upon our ability to experience spatial relations. An assumption to this effect underlies most of the famous and influential thought experiments in this area of metaphysics, and it will also be taken for granted in the discussions in the following chapters as well.

Before moving on, it is worth mentioning two possible objections to the above. Firstly, one might object to the claim that spatial concepts are experiential concepts by arguing that it is at most the *application* of such concepts that requires suitable experience; the possession of the concepts alone has no such prerequisite. We can imagine (it might be said) a creature being caused to possess certain concepts—in this case, spatial concepts—by, for instance, being

¹⁰⁷ P. F. Strawson (1959), p. 63.

struck by lightning and having certain physical-chemical changes occur within its brain. Could such a creature not then possess spatial concepts even if it was unable to apply them in experience? I do not see what such a claim could amount to. To possess a concept is simply to be able to apply it in thought or experience; in the case of experiential concepts, such as spatial concepts, application in experience is primary. Given this, it makes no sense to claim that a subject could possess experiential concepts yet be unable even in the best possible conditions, given suitable perceptions and time, to apply them in experience.

Secondly, it might be thought that there is an objection to the use of the idea of a fundamental framework in this context, namely that it overlooks the possibility that two or more of the frames without essential connections to action, each of which are independently unavailable to the Weather Watchers, might be accessible to these passive creatures when combined. In other words, the following arguments might be alleged to be misleading in that they fail to take into account the possibility that a *combination* of the frameworks considered might be sufficient for spatial thought. Granted that no framework on its own allows the subject the robust form of spatial thought in which we are interested; the suggestion would be that two or more frames combined might. A three metre ladder will not get me over a five metre wall, and neither will a three metre rope and grappling hook. It would nevertheless be fallacious to argue from this that a five metre rope or ladder would be the only ways of mounting the wall; the shorter ladder and rope in combination would be more than adequate.

The discussion of this objection will be put aside until the arguments of Chapters Three and Four have been presented. I will, though, claim that such an objection is based upon a misunderstanding of the present methodology. Hopefully the arguments themselves will go some way to demonstrating this.

§2.3 Some requirements

Apart from a connection to experience there are other features that a concept must display if it is to be considered a spatial concept, or if a subject is to be credited with the possession of such concepts. The arguments in the following

chapters will address some of the more substantive issues raised in this context, for example whether a subject would be able to think spatially without employing the concept of an object.¹⁰⁸ At the present time, I want to consider some of the minimum requirements that a concept must meet in order for it to be regarded as a spatial concept. The most obvious one is that spatial concepts—or the general concept of *space* as a whole—should provide a structured framework of some sort in which spatial items such as objects are located.¹⁰⁹ But what must we expect of such a framework?

The main requirement that should be noted, and one which I do not intend to argue for here, pertains to a familiar aspect of space. Space is the domain in which *all* physical objects and phenomena exist; each and every object is spatially related to each other. To put it another way, space is *unified*—there is, and can only be, one space, in which every physical item is located. Kant famously advocated this as part of his doctrine of space as an a priori form of intuition: “we can represent to ourselves only one space; and if we speak of diverse spaces, we mean thereby only parts of one and the same unique space”.¹¹⁰ Were someone to tell us about an allegedly real object, but upon being asked where it was and how we might get to it, replied that we could not get to it as it was not within *this* space at all, and did not stand in any spatial relation to any object which we may encounter. This would plainly be nonsense; the alleged object would be at most a fictional object, and that is no sort of object at all.¹¹¹ There is only one space, and it is this in which all objects, etc., are located.

¹⁰⁸ John Campbell has suggested that this might be made possible by focusing upon environmental features without any thought as to whether these have the internal causal structure which we find in objects. Cf. Campbell (1993), (1994a) and (1994b), §1.5. For discussion of Campbell (1994a) see Brewer (1994) and Peacocke (1994), Introduction, §1.

I will suggest why we should reject the idea that a subject could possess spatial concepts but not the concept of an object in §3.5.

¹⁰⁹ It should be plain from the context that the sort of framework that we are considering here is of a different type from that discussed in the previous sections. The earlier discussion concerned broadly epistemological issues, namely the ways in which we might experience and think about space; the present, on the other hand, concerns certain features of space itself, and is thus more correctly seen as falling within the realm of metaphysics.

¹¹⁰ Kant (1929), A25/B39.

¹¹¹ *Contra* Quinton (1962). Stevenson provides an argument against the suggestion that we can make sense of the idea of multiple causally unconnected spaces in (1982), §5.3.

We can treat the rest of the interrelated requirements that I want to raise as following from this. If we set aside any considerations concerning divine beings for the moment and limit our thoughts to more familiar mortal creatures, then, in the first instance, it must be possible for a subject to grasp the fact that it is itself located *within* the space of which it is aware.¹¹² That is, the subject must be aware that this framework encompasses itself; it is one of the items that falls within the framework. This is not, however, to say that a subject should always be able to specify her actual location (“I’m in St. Andrews, Scotland”); this would be an excessively strong requirement, with no obvious justification. As our own case demonstrates we can all too often be mistaken about our precise location, whether on a small scale (the bedroom door is never quite where you think it is in the dark) or grand scale (consider the familiar unfortunate individual smuggled to Twin-Earth while asleep). Rather, the subject only has to know that no matter how lost she is she falls within the same framework as more familiar locations. That this is so is demonstrated by the fact that no person who is lost—even extremely lost—will find it at all reassuring to be told that she is in the same framework as (i.e. she bears some spatial relation to) the place where she would rather be.

One initial reason for claiming that a subject must regard herself as spatially-located just might be that it correctly represents how *we* view the relationship between ourselves and the space of which we are aware. If the Watchers are to have spatial thoughts on a par with our own, then they must also hold themselves to be located in space. To take this line would be to restrict the forms of spatial awareness in which we are interested to those involving a grasp of oneself as a spatial object. While this would be unobjectionable, it would not be of much philosophical interest. I want to briefly sketch two lines of thought that suggest that all conceptual, spatial awareness of a reasonably robust sort must represent the subject as spatially located.

The first turns upon what is required if any subject is to be able to treat her experience as of something other than her own sensations, i.e. if she is to

¹¹² It must also identify its present location as one and only one place within the framework; that is, it cannot regard itself as being at two places at the one time. Cf. Evans (1982), §6.3.

realize that her experience is perceptual in nature. In order to do so, she has to grasp the fact that it places her in spatial relations with that which she perceives; she is not on the outside looking in, and she does not experience a space to which she is unconnected. To understand one's experience as perceptual is in part to see it as the upshot of causal processes involving both oneself and the items perceived.

To grasp such facts about perception is to possess a *simple theory of perception*.¹¹³ This simply amounts to a grasp of certain necessary truths which comprise the content of the concept *perception*; to grasp the concept is, in part at least, to grasp these truths.¹¹⁴ Even were a concept-using subject to lack this particular concept, a grasp of a simple theory would be presupposed by any employment of perceptual experience in operations concerning a spatial world in the rational sphere (for example the formation of beliefs concerning a spatial environment, or any judgements concerning objects or places).

Why this is so can be brought out by looking at the contents of such a theory. If one is to understand that in experience one is presented with states of affairs distinct from oneself and one's states, one must grasp that one's experience is the upshot of a process that involves both oneself and that which the experience is of, in which both have some input. The subject has to be able to make sense of the idea that she stands in an appropriate relation with that which she perceives; and were the situation to change such experience may no longer be possible. This might happen for a number of reasons. Either she or the target might move in such a way that the target is no longer experienceable (she will no longer be able to feel the dog if it walks away), or either might change in certain ways (she becomes blind or the grinning cat becomes invisible). Alternatively, something might intervene between them (the window is closed and she can no longer hear her neighbour), or conditions might just become

¹¹³ As with the term 'frame of reference' (cf. §2.1 above), there are multiple ways in which we might understand the term 'simple theory of perception'. It might be argued that there could be subpersonal or nonconceptual simple theories (although, of course, the term 'theory' could be misleading in such a context). In the present context we are concerned with a simple theory that comes at the conceptual level, at the level of the subject's *understanding* of certain facts about perception.

unfavourable to perception (night falls and she can no longer see), and so on. It is only by dint of the fact that the conditions are presently amenable that she is able to have her present perceptual experience.

The subject must be able to have such thoughts about her own experience. If she cannot grasp any of these possibilities, then we would have no reason to suppose that she recognizes her experience as being of anything other than her own states. After all, in order to have sensations one need not hold that one stands in relation with anything else; the sensations are just of one's own states. This is the main point of divergence between perceptual experience and mere sensation. Perceptual experience is precisely experience of something other than oneself, and if one is unable to grasp this distinction and see its relevance to perception, then one is unable to have any perceptual experience at all.

One way in which a subject might make sense of the idea that she is able to have perceptual experience of items located in space is through the notion of a spatial point of view from which these items are perceived.¹¹⁵ Perceptual experience which contains a perspectival element—a point of view—also places one immediately within the perceived environment. Without seeing oneself as located in the space represented, one will be unable to explain apparent distortions in the items perceived—why they get larger or smaller, change their perceived proportions, become vague and blurry, etc., in such perspectival experience. Recognizing a spatial point of view as such will give the subject access to an understanding of the possibility that other items might intervene in the perceptual process or that the target item might move out of perceptual range, and so on. This point of view has to be located in space; it might, however, be a further question as to whether a subject must regard itself as existing at the same location as this point of view. Our Watchers might be Cartesian dualists—they might believe themselves to be essentially non-physical. We can allow this possibility, as long as it is accompanied by the belief that each Watcher is

¹¹⁴ Cf., for example, Evans (1982), Ch. 7; Campbell (1985); Brewer (1992), §4; and P. F. Strawson (1992), Ch. 5, esp. p. 60.

¹¹⁵ Not all of our Weather Watchers will be able to employ the idea of a point of view. Such an understanding will be out of the reach of those Watchers employing an absolute framework as fundamental. Cf. §3.2 and §3.5.

somehow closely tied to some particular point in physical space from which it perceives, i.e. where its point of view is located (how they then explain this connection is their problem).

The second reason why a subject must conceive of itself as existing within the spatial framework it perceives concerns the subject's ability to distinguish between locations in the actual, physical world and fictional places. To grasp the fact that Trollope's Barchester, Tolkein's Middle-Earth and the Simpsons' Springfield are fictional places involves an awareness of the fact that these are fictional derivatives of actual space. We can understand the idea that these are supposed to be places because we know what physical space is actually like. The locations within each of these fictional places are interconnected, and the behaviour of the objects therein governed by rules similar to the causal laws governing us.¹¹⁶ These fictional spaces behave more or less like our own world—that is why we recognize them as places. Were the similarities too few, they would cease to be fictional spaces at all.

One way in which one might attempt to identify whether a place is real or not is would be by trying to relate it to the place one presently occupies or a place which one had occupied in the past. If one is unable to do this, there may remain a question as to whether the place is real or fictional.¹¹⁷ There may be practical issues that underlie any inability to locate an actual place in terms of one's present location (imagine a freed hostage trying to lead the authorities back to the place where he had been kept permanently blindfolded); nevertheless, the place should in principle be connectable to one's present location. If it was not, then it would be no real place at all.

This point also holds for places one has had experience of. If one sees a place represented on the television, or dreams about a particular place, or even experiences a location while in a virtual reality machine, part of what it is for

¹¹⁶ Of course, these rules can be broken for comedic effect, etc., but it is only the fact that such rules are assumed in the first place that allows for this. How consistently the rules are employed by the author will in part depend upon the genre of the fiction. Comedy has different rules from soap opera, and both have different rules from fantasy (consider Borges' one-sided disk in this context).

such places to be real is that they should stand in spatial relations with one's present and past locations. If there is no way in principle to get to the place dreamt of, then it was illusory—there is no such place. This point would have to be developed in order to accommodate places that no longer exist, but there are no substantial difficulties to doing so. Atlantis, if it ever existed, would have been located at a specifiable point on the Earth's surface. Even if there are no traces of it left, one can still go to that location, when specified in terms of longitude and latitude.

We might draw the stronger conclusion that if one is to treat a location as real, then one must be able to relate it to a location occupied at some time by oneself. This is the fundamental level at which one distinguishes real places from fictional or illusory ones. To see this, imagine the real world and all fictional, spatial worlds laid out for inspection by some sort of detached, transcendent being with no connection to any of the worlds.¹¹⁸ If the being was unable to locate itself within any of them, and did not even regard itself as spatial, there would be nothing that would allow the being to make the claim that one was of a distinct category, was actual as opposed to fictional. No other features of the worlds will do; there is no hallmark of the actual that is stamped on the real world. The real world need not be the largest of the worlds, the best of them, the most aesthetically pleasing, and so on. That this is the world that really exists cannot be established just through some description of the world.

The point that we should draw from this is that we are only able to make a distinction between actual and non-actual due to the fact that we locate ourselves within one of the worlds; the places of that world are both spatially related to us and in principle accessible to us. The ability to draw this distinction is vital to the possession of the kind of spatial awareness in which we are interested. If one cannot make this distinction, one cannot ascribe objectivity to one's conception of the spatial: there would be no difference between that which exists and that

¹¹⁷ The context in which the place appears may clarify this, but it will only do so if one has a grasp of the distinction between real and non-real places.

¹¹⁸ We will assume that he or she did not create any of the worlds.

which appears to exist. One could give no content to the idea that there exists an objective spatial realm in which all physical objects reside.

It is a grasp of the fact that there is an objective, spatial realm that allows us access to the idea of fictional worlds. These can be called ‘worlds’ by us precisely because they mirror certain features of the real world. Places are connected in a holistic fashion, the behaviour of the objects therein are governed by certain rules, and so on. Likewise, it is this which allows us to make sense of the notion of ‘cyberspace’: the idea is that the relations between virtual locations mirror the relations between actual locations sufficiently to suggest the use of spatial terms as a description of their structure.¹¹⁹ It also allows us to grasp the idea that games occur in abstract spaces. A game of chess, for example, need not be represented as occurring on a two-dimensional spatial board; it could also be represented as a series of rule-governed transformations over n variables (think of how the moves of a game can be written in the form ‘Qxg6 hxg6’, etc.). Such a point will be true for all board and computer games, even those that present the illusion of a three-dimensional space. The computer generating such a world, after all, will only be manipulating large numbers of variables, and is nothing in principle to stop us from representing them in such a way as well, with no thought as to the ‘world’ of the game.¹²⁰

It might also appear that without a grasp of one’s spatial, physical presence one would be unable to have any conception of oneself at all. P. F. Strawson’s argument for the importance of bodily identity in the identification of subjects of experience can be seen in this light. He claims that the only way in which we might grasp identity criteria for subjects qua subjects of experience is by basing these upon identity criteria for bodily subjects. That is, one cannot make sense of the idea that one is a lasting subject qua subject of experience—a Cartesian ego—or make sense of a purely subjective, ‘inner’ use of ‘I’, without first conceiving of oneself as a physical subject, as a person, “who perceptibly

¹¹⁹ Presumably in the case of cyberspace such a description was initially metaphorical before being adopted as the relevant terminology. We do not only have ‘cyberspace’, after all, we have ‘location’, ‘site’, ‘surf’, and so on.

¹²⁰ Although it is likely that this would not be much fun.

traces a physical, spatio-temporal route through the world".¹²¹ Either we conceive of ourselves as physical, embodied subjects or we cannot conceive of ourselves at all. This is Strawson's point.¹²² There seems to be no room for the idea that a subject might entertain the concept of physical space without identifying himself as something within that space. Either he does so, or he cannot identify himself at all.

If we are to conceive of ourselves as space-occupying particulars we have to be able to draw a crucial distinction between actual, physical space and geometrical space. As Campbell also notes, any subject, whether with conceptual abilities or not, must be able to give *physical significance* to its notion of space.¹²³ Physical significance is just what distinguishes these two forms of spatial understanding. On the one hand, it is possible to think of spatial frameworks as purely geometrical structures, with no connection to any physical reality—but this way of thinking about spatial frameworks is not of significant relevance to the current project. For example, we can think of Euclidean space in such a way: we can specify how the different points are related, whether it is bound, etc. In other words, we can define its topological structure; we can further define its metrical, affine and conformal structures.¹²⁴ The specification of such structures will tell us the properties of the various points, as well as what constitutes a straight line, and the angle between two lines, and so forth. We can construct innumerable spacetimes by specifying such structures, of which Euclidean spacetime is only one.

¹²¹ P. F. Strawson (1966), p. 164.

¹²² The main thrust of Strawson's claim is that any criteria for personal identity that we might have will turn upon our conceiving of ourselves as physical persons, not the point that I wish to emphasize. Nevertheless, the idea that one must be able to conceive oneself as located in space is implicit in Strawson's discussion. This is also true in Evans' case (discussed in the following, in the main body of the text), and can be made in the cases of discussions in McDowell (1994b), Lecture V §5, and Cassam (1989), pp. 87-9.

¹²³ Cf. Campbell (1994b), Ch. 1, esp. §1.4. Campbell thinks that there are at least two ways in which a subject might ascribe physical significance to a spatial representation: one would be through the practical employment of the representation in its interaction with other objects, etc., whereas the other concerns the ascription of such significance to absolute, detached modes of spatial thought (cf. §2.4)—see Campbell (1994a) and (1994b) for details. The arguments in the following chapters can be read as attempting to demonstrate that a subject can only ascribe such significance in the former way.

¹²⁴ Cf. Ray (1991), Ch. 3.

That we can do so is distinct from our grasp of the idea of a physical space. When viewing a framework in this abstract way it remains a further question whether or not it is suitable for capturing the fact of the matter about actual space—or, at least, whether it can be employed as a model of actual space without relying upon accompanying impractical conventions regarding universal forces, etc.¹²⁵ There are facts about how objects behave in space: how light behaves near objects of large mass; what happens when two objects of certain types come into contact; whether energy is conserved through changes in state; whether bodies accelerating at different rates will measure the same duration in time, and so on. Accordingly, there are issues as to how we understand the properties of the geometrical frameworks. Are these purely abstract, mere exercises in geometry? Or are they intended as putative models of actual space? If the answer is the latter, then we are attempting to ascribe physical significance to the structures and definitions of the framework. In other words, we are attempting to capture the physical, objective facts about actual space. The properties of the points under such a reading will relate to what would happen to any object located there, such as oneself. The specification of the straight lines in the framework will relate to the paths that bodies in force-free motion will take. Very roughly, to ascribe physical significance to such a schema is to state that this captures the facts concerning how physical objects behave. We are connecting the properties of the geometrical framework with the properties of physical objects.

If a subject is to have the robust sorts of spatial concepts in which we are interested, then it must be able to ascribe physical significance to its concepts. The spatial concepts we have cannot lack such physical significance—this follows from the fact that we regard ourselves as physical objects existing within physical space, as just discussed. To locate oneself in space is to locate oneself as a physical object in physical space, in a domain governed by objective, causal laws. There may well be a question as to which geometry—Euclidean,

¹²⁵ Discussion of such issues is familiar from the philosophy of space and time. See, for example, Reichenbach (1957), Ray (1991), Ch. 4, or Sklar (1974), Ch. 3. I do not intend here to adopt any position with regard to these issues. It is only the notion of physical significance that is relevant to the present discussion.

Reimannian, or whatever—is most suitable for applying to actual space, but nevertheless in order to understand this issue we must have a prior grasp of the idea of actual, physical space. To have an understanding of physical space is in part to see it as a framework which relates to the real, physical world within which beings, including oneself, go about their day-to-day business. Of course, there are questions as to which system of geometry might best serve to represent the topological nature of physical space, but this is a separate matter. To comprehend space in this way is also to have some understanding of the way that objects and other phenomena interact—it is to have some idea of the physical laws which govern the activities of beings such as ourselves, and to grasp the fact that objects (including oneself) are causally efficacious in any number of different respects.

Objectivity is of central importance to the idea of physical significance. Part of the content of the thought that one exists in physical space is that one is subject to laws that are outwith one's sphere of influence. That is, full spatial awareness of the sort we possess entails a grasp of the fact that one exists in a mind-independent reality. One aspect of this came out in the discussion of constraint in the previous chapter, in the idea that the world places restrictions upon one's experience.¹²⁶ In the present context, the key point is that one has no say in the matter of the laws governing oneself, nor has one any say in the laws governing other physical objects. There is a limit placed upon the sorts of changes that physical objects can undergo.¹²⁷ Correspondingly, there is a fact of the matter as to the changes that objects are undergoing. One is not free to decree that car a is accelerating away from car b, which in turn remains stationary; there is an objective fact as to which of the vehicles is undergoing inertial motion. Of course, one need not be able to give a full characterization of the actual laws of the world. There are, however, limits upon what laws one can postulate, these being determined in part by our preconceptual grasp of the behaviour of objects (including oneself).

¹²⁶ §1.3.3 above. To labour the point somewhat, this is the fact that usually lies at the heart of claims to the effect that experience is fundamentally passive.

¹²⁷ One cannot bend physical laws in the way that cartoon characters can.

If our passive subjects are to be spatially aware in the substantive sense in which we are interested, then they must be able to do more than reflect upon different geometrical frameworks. They have to ascribe physical significance to the concepts that they employ—they have to grasp that these frameworks might be employed to capture the nature of physical reality. This would distinguish between reflection on a priori geometries and thought about an objective, empirical world.

It is also not enough that they should possess a cluster of concepts, the interconnections between which mirror those between our spatial concepts. They might, for example, appear to assign meanings to the theorems and variables employed in their geometries, but in order for these to come to represent physical laws, objects and properties, they have to grasp that there is an objective fact of the matter which they seek to capture. These concepts pertain to that which is distinct from oneself and one's states. Without such an acknowledgement of objectivity, there would be nothing that could distinguish a putative representation of physical space from representations of fictional worlds or the logical space of a game. They would be unable to make such a distinction.

To see this, imagine a sentient computer running some sort of architectural program. The computer is running a model of what we recognize as an area of space, say Trafalgar Square. It is testing what would happen to the Square under various changes in certain variables. It increases the value assigned to one variable and Nelson's column collapses, decreases it and the water from the fountain shoots into the sky, and so on. Certain other variables are amended and the pigeons can occupy the same space as the Column; they are again altered and the drunken football fans can no longer enter the space occupied by the water (jump into the fountain). It can do all of this consciously, and it possesses all the requisite mathematical concepts (*topological structure, variable, straight line*, etc.) but we can still ask whether it has the concepts of gravity or the concepts relating to what it is to be an object (e.g. impenetrability, causality).¹²⁸ Is there anything here that would allow it to grasp that one of the simulations best

¹²⁸ Cf. §3.5.

represents the state of affairs in the real world? Can it, in other words, ascribe physical significance to its simulation? As far as the above goes, there is nothing to allow it to do so.

One aspect of the idea of physical significance that the machine presumably will be unable to capture is that actual physical laws are outwith the control of the subject. We require the concept of physical possibility to express the fact that the laws of physics are of a different kind from the rules of a game or a simulation. The former are objective, in that they are something by which we are constrained, and which any physical theory must attempt to represent. Rules, on the other hand, are mere stipulations which we may choose to follow, ignore or alter as we desire (if we are in a position to do so). The fact that the sentient machine can change or adopt any number of regularities illustrates this.

Gareth Evans expresses a line of thought which connects physical significance to the requirement that one must be able to place oneself within the space in the following passage.

[thought] about an objective spatial world ... presupposes the ability to represent the spatial world by means of a cognitive map. But nothing that the subject can do, or can imagine, will entitle us to attribute such a representation to him if he cannot make sense of the idea that *he* might be at one of the points representable within his map. We say that the subject thinks of himself as located in space (in an objective world that exists independently of him ...); only if this is so can the subject's egocentric space be a *space* at all.¹²⁹

The point can be further stressed by noting that we need not deny that the subject possesses a conceptual framework that has certain of the elements of a cognitive map—it might, for example, display some or all of the kinds of structure mentioned above. The issue is whether or not it actually represents the spatial world. In order for it to do so, it has to meet the requirements outlined. In particular, the subject has to be able to grasp the fact that he occupies one of the points of the framework.

An important point to note here is that I am claiming that the subject must *conceive* of itself as spatially located. This is what Quassim Cassam calls the

¹²⁹ Evans (1982), p. 163.

‘concept version of materialism about self-consciousness’.¹³⁰ He rejects it in favour of another form of materialism about self-consciousness, which he calls ‘the intuitive version’—the idea that one is “sensibly or, in Kant’s terminology, *intuitively* aware of oneself *qua* subject as a physical object”.¹³¹ This concerns one perceiving or experiencing oneself as such an object. My emphasis on the former sort of materialism connects with the point made in the Introduction, that the present enquiry comes very much at the conceptual level (concerned as it is with one’s grasp of spatial concepts), and also with the transcendental–conceptual form of the arguments in the following chapters. Nevertheless, my advocacy of the ‘concept version of materialism about self-consciousness’ is compatible with at least certain accounts concerning the content of our sense-perception or intuitions. The story that we give concerning the basis of our conceptual grasp of our own spatiality (or what underlies this ‘conceptual materialism’) is another issue, and one that does not affect any of the following major claims or arguments.¹³²

I now want to move on to consider the various types of frameworks that are possible. As stated above this will be approached via a series of distinctions that should serve to highlight the relationships and differences between the various frameworks outlined by Campbell. The distinctions are as follows:¹³³

- in §2.4 the distinction between frameworks centred on an object and those not centred on an object will be discussed, with the emphasis on the latter (absolute frames of reference);
- in §2.5 we will focus upon the difference between those centred on the subject and those centred on an object other than the subject, again focusing upon the latter (allocentric frames of reference);

¹³⁰ Cassam (1997), p. 8.

¹³¹ *ibid.*, p. 8.

¹³² I will pass over Cassam’s reasons for rejecting the concept form of materialism in favour of the intuitive version, as I believe that the arguments in the following chapters show that one must indeed conceive of oneself as having physical presence.

¹³³ It is worth noting that one sympathetic to the idea (advocated to a certain degree by Campbell in (1993) §1, (1994a), §2, and (1994b), §1.5) that one need not think in terms of *objects* if one is to think spatially might hold that the following list of frameworks is not exhaustive after all, as no place is left for alternatives, such as the ‘feature-placing’ view. I will argue in §3.5 that we cannot make sense of such a suggestion at the conceptual level; but, for the moment, one sympathetic to the idea of non-object featuring spatial frameworks can read the phrase ‘object or lasting feature’ where the word ‘object’ occurs in the list.

- in §2.6 the distinction is between those frames of reference centred on the subject as an agent (namely egocentric frames of reference) and those centred on the subject as an object;
- finally in §2.7 we will consider those frames centred on the subject as object via internal self-awareness and also those centred on the subject as object via external self-awareness.

This will allow us to give a reasonably thorough account of the various ways in which a subject may be able to regard space. How many of these ways can serve as a subject's fundamental frame of reference will be discussed in the following chapters. A subject can either:

- (i) view space as centred upon himself qua agent (or subject of experience) (*egocentric*);
- (ii) view space as centred upon himself qua physical object (*body-centred*),
 - a) considering his body *externally*,
 - b) considering his body *internally*;
- (iii) view space as centred upon a physical object distinct from himself (*allocentric*);
- (iv) view space as not centred upon any object at all (*absolute*).

My use of the term 'allocentric' here may not completely accord with that found in the literature, even given the qualifications in §2.1 above. This is because some of the distinctions made above, particularly that between (i) and (ii), and that between (iii) and (iv), are not always made. Instead, a distinction is often made between 'egocentric' frames, or those frames centred upon the subject (without any further specification), and 'allocentric' frames, or those centred upon the environment (again with no further specification made). As long as we are aware that the terms as used here are intended to draw their meanings from the above definitions it should be possible to avoid confusion on this matter.

§2.4 Object-centred vs. non-object-centred spatial frameworks: absolute spatial frameworks

We can approach the issue of the different types of framework available by considering certain key distinctions which will also serve to highlight the

interconnections that exist between the different frameworks. The first such distinction is between frameworks centred on objects and those that are not. Very roughly, the distinction between absolute and object-centred frames of reference holds between the following two sorts of ways of thinking about space. The first, employing the *absolute* frame of reference, concerns thinking of space in a way that is not based upon the physical characteristics of any objects that may be located within that space; instead, it is to think about space in a detached, objective way, from no particular viewpoint whatsoever. Campbell characterizes this way of considering space as “thinking about the space as a disengaged theorist”.¹³⁴ Employing an object-centred frame of reference, on the other hand, is to think of space in terms of the physical characteristics of a certain physical object, be it one’s body or another object. On the latter approach, space is ‘divided up’ in terms that are based upon the features of the object that plays the role of the origin of the frame of reference. That is, this way of thinking about space uses an object to provide a locus, and bases the axes of the frame upon some feature of this object. We will consider such frameworks in detail starting with the following section. Before moving on to clarify this distinction, it is worth emphasizing that the same areas of space may be thought of in both ways. I can think of the place where a certain book is lying as ‘within reach of my left hand’, ‘twenty centimetres beyond the rear left-hand corner of my computer’, ‘three metres southeast and nine metres up from the steering wheel of my car’, or as the place corresponding to a certain specific set of map co-ordinates; nevertheless, the place remains the same.

This distinction can be made clearer by approaching it in terms of the spatial concepts that are (or can be) related to each. We can find distinct clusters of spatial concepts, such as: ‘north’, ‘south’, ‘east’, ‘west’; and ‘to the left of’, ‘to the right of’, ‘in front of’, ‘behind’, ‘above’, ‘below’. Some of these concepts, those in the first grouping, are not relative to the spatial orientation and structure of a particular body; we might reasonably consider these as relating to an absolute framework, in that a subject could perfectly well operate with these concepts without being involved in the space under consideration—as might

¹³⁴ Campbell (1994b), p. 5.

happen when we consult a map, for instance. This is not the case with the second group. These crucially involve some form of ‘body-centredness’; in order to judge whether a place or object is in front of \underline{x} we need to be able to distinguish \underline{x} ’s front from its back. This must either rely upon some asymmetry in \underline{x} , by which we can distinguish an obvious front and back—human beings provide a clear example here—or the assignment of the terms ‘front’ and ‘back’ to particular faces of \underline{x} by us. This assignment may also turn upon an asymmetry, as when we talk of the front of a house, or it may be determined purely by stipulation, as in the case of a plain cube. In either case, there has to be an object to act as our focus, as the origin of our frame of reference. There need be no such object in order for us to employ concepts such as ‘north’ and ‘south’; given any arbitrary point as an origin we can talk of “ \underline{n} units north” and so forth irrespective of whether anything is located at the point.

This is not to deny that terms such as ‘north’ and ‘south’ require a surface (such as that of the Earth) and a prevailing magnetic field in order to have application. It would be incorrect to suppose that such facts provide evidence against the suggestion that the terms in question relate to an absolute framework. Instead, these are facts about the space or the area to which we wish to apply a framework, and do not concern what must be found within the space in order for us to apply certain frameworks to it. For instance, it is highly plausible (and no doubt very likely) that most people who use the terms, acknowledge facts such as ‘Glasgow is north of Liverpool’, and look at maps have absolutely no idea what lies behind the assignment of the terms ‘north’, ‘south’, etc. As far as they are concerned, ‘north’ is simply what lies at the top of a map, ‘south’ what lies at the bottom—these assignments could be completely arbitrary as far as they are concerned. And there is some truth here—we could still use similar concepts and maps could still function perfectly well in the absence of a magnetic field, as long as we could agree on certain conventions about what to call ‘north’, and so on. There is also a certain further ambiguity in such terms within the context of the present discussion of absolute frames of reference, and this can be brought out by considering the different ways in which a cartographer and a hill walker might employ them. When a walker consults his compass and then heads off to the east

he is not employing the concepts as part of an absolute framework; instead he is using them in a way that is connected to his own actions, in a way that is decidedly object-centred. The cartographer who sits looking at a map of a distant land, on the other hand, is using the terms in an absolute sense, in that there is no suggestion that he is, or ever will be, in the place featured on the map, and the map is not centred upon any object in particular.

Maps can also be used to illustrate absolute frameworks in another way as well. Absolute spatial frameworks should not, it is worth noting, be confused with the Newtonian notion of absolute space (although they may have some features in common). Such frameworks, we have seen, are those that are not defined in terms of an object; we can bring out just what such a framework is by considering the example of a map, of St. Andrews for example. Although in some respects similar to the view one might have from a high altitude, this map does not represent the area of land as 'St. Andrews from an altitude of n meters'; it makes no claims whatsoever about point of view, as a photograph or a sketch of St. Andrews taken or made from the relevant height would. There is no point of view implicit in the representation in the case of a map, we might say. In the case of a photograph, it is part of our understanding of what a photograph is that we see it as from, or as placing the viewer in, a certain viewpoint or relation with the object of which it is a photograph. The lack of a perspectival element in the case of a map is directly related to the lack of a central locus, an object upon which the frame is centred and to which all else is viewed as relative.

A map is not the only example of an absolute frame of reference available to us. A scale three-dimensional model, or a set of draughtsman's blueprints, can be used just as well. Reflecting upon these might serve to avoid any confusion that might result from the physical similarity that holds between a map and an aerial photograph. A model can represent the same area of space as a photograph, but it does so in an entirely different manner. In the case of the photograph, we can regard it as attempting to place us in the same relationship to the house as was the photographer; the house is seen from the point of view of the photographer which, by our looking at the photograph, we can imagine as our own point of view. That is, the photographer is in the same region of space as the

house; he is causally connected to the house. This can be seen purely from the photograph; our familiarity with perspective and photographic representation allows us to see it as having been taken from around twenty metres away from the house, at about the eye-level of a human adult. We can see that were we to occupy the space in which previously we would have found the camera our view of the house would have been exactly that found in the photograph. The model, however, does not represent the house in such a manner. There is no suggestion that the model maker was, or must have been, in any particular spatial relation to the house when the model was created, as the photographer (or, more precisely, the camera) must have been. In terms of the above discussion of the photograph, we might say that the model does not place us in any particular relation to the house, whereas the photograph does.

There are, undoubtedly, distinctions that can be made within the class of absolute frames of reference, pertaining to the metrical structures imposed by us to give sense to units of distance, what explains our employment of a particular metric, and so on. However, for our present purposes it is enough that we recognize the class as a whole, and acknowledge the distinction between those frames centred on an object and those not.

§2.5 Subject-centred vs. object-centred spatial frameworks: allocentric frameworks

Given any physical object we are able to set up a frame of reference based upon features of that object which will allow us to pick out and locate any other object. Our own bodies can be used in just such a way. In this section I want to focus upon those body-centred frames of reference that are centred upon an object other than one's body; we will call these *allocentric* frameworks.¹³⁵

Take the example of Glasgow Cathedral. One way that we could establish a framework based upon this would be to define an axis in terms of the spire of the cathedral, this giving us a vertical axis for our framework. Next we could take a line from the centre of the altar to the main entrance and employ this as a horizontal axis. Our origin would then be the point at which these two lines

¹³⁵ See the comments at the end of §2.3 concerning this terminology.

intersect. A unit of measurement could then be based upon some physical feature of the building, such as the length of the spire. We would then be able to pick out any object by relating its position relative to our axes of reference defined on the Cathedral; an object might be picked out as being 3 units at a bearing of 35° from the horizontal and 100° from the vertical (the rough position of the entrance to the Glasgow Necropolis).

There is in principle no reason why we could not think of all objects in just such a way. We can imagine a person unfamiliar with a town thinking of the places in the town in just such a way, in terms of the one place with which she is familiar (although it is of course unlikely that she will go as far to base her unit of measurement upon a feature of the known location given that we are all familiar with other units). It is not suggested that this is a true model of our actual spatial thought, although something similar may well be employed in certain situations, and it is certainly not being suggested that it models our primary mode of spatial thought. It does, however, serve as an example of an object-based framework.

We also have to leave open for the moment the possibility that such a frame of reference could provide a different kind of being with its fundamental framework, despite the fact that it does not play this role for us. While this might appear intuitively implausible, we cannot dismiss it out of hand. Consider the following scenario. An architect working on a new building programs a computer firstly with all the details of her project, and secondly with similar information on the surrounding environment. Asked any question about this virtual space, such as the comparative heights of certain landmarks, the computer starts with the architect's building and compares the other features to this before answering in terms of their relationship to her building (e.g. "the monument is thirty metres taller than your building, which is in turn three metres taller than the church"). This is all entirely possible. Now, although the computer itself cannot think, let us imagine that such processing might provide a model of the thought of a certain form of life. It is conceivable, for instance, that the Weather Watchers might think in such a way; they could have their attention continually focused on a nearby mountain, upon which the local weather turned. Given the importance of the weather in their lives, and given the fact that they are supposed

to be entirely passive creatures, it might well seem that any object upon which the weather depended would appear as of greater importance to them than their own bodies, and it would seem reasonable from this to expect them to think of all other objects—including their own bodies—and locations in terms of their relationship to the mountain.¹³⁶

The possibility of allocentric frames acting as fundamental frameworks cannot be dismissed at this point. We shall raise some further considerations concerning their suitability for filling this role in the next chapter, but for now let us turn to the various sorts of frames that are centred upon the subject's own body.

§2.6 *Subject-as-agent-centred vs. subject-as-object-centred spatial frames: egocentric frames*

The distinctions considered in this and the following section all involve the ways in which we can base spatial frames of reference upon ourselves. There are two distinctions that we will look at: firstly, we shall consider the distinction between centring a framework upon oneself qua agent, in terms of one's possibilities of action, and centring the framework upon oneself qua physical object; secondly, in the following section, we will look at two different ways in which one might go about centring a frame upon oneself qua physical object, turning upon the difference between what I call *internal* and *external* self-awareness.

Earlier I claimed that the various distinctions would provide us with a reasonably thorough and exhaustive account of the types of spatial frameworks in principle available. One reason for doubting this claim might be that, while the terms of the second distinction might appear complementary (suggesting that this distinction does indeed capture all the possibilities for centring a frame upon one's own body when regarded merely as an object), the terms in which the first distinction is stated might not initially seem to be exhaustive. Why should being an agent (or possessing the ability to act) be the only alternative to being an object?

¹³⁶ See §3.2 for further discussion.

In the context of the present discussion concerning the different possible roles of the body in spatial awareness, the ability to act—the ability to affect one’s spatial surroundings—stands out as the most spatial of our abilities. Physical action is intrinsically and essentially spatial. Given this, it seems that this ability might well provide any subject of experience in possession of it with a way to centre a spatial framework, the basis of a way in which to think about space. Those subjects lacking such a spatial ability would have to find some other way to base a framework upon their bodies. The present distinction, looked at in this way, becomes the distinction between frameworks centred upon the body as active as opposed to those centred upon the body as passive.

Acting does, of course, require having a body. Frameworks employing a subject’s ability to act do not stand as alternatives to those that are based upon the body in some way; instead, they form a special subset of them. We should regard the second distinction, which is discussed in the following section, as concerning the possibilities for body-centred spatial thought for putative subjects of experience not endowed with the ability to act. If the Weather Watchers were to base a frame of reference upon their bodies they would have to do it through either or internal or external self-awareness; the lack of any ability for action rules out the possibility that they could employ an egocentric frame.

We can think of the issue in this way. Approaching the matter from a decidedly Cartesian angle, what we have as our starting point is a bare subject of experience. How might such a subject connect itself via its thought and experience to an area of physical space? There appear to be several options. It might do so by thinking about the area as a whole, not picking out any object for special attention. Alternatively, it might focus upon one arbitrary object, using that to provide the basis for a spatial frame of reference that would allow it to relate spatially to any other object or location. Yet again, given that it is a physical being, it might use its own body (connected as it is to its point of view) as its connection to space, centring a frame on that. How might it do this? If it has the ability to act, to participate in its surroundings, then it could base its framework upon this most fundamentally spatial of abilities; if it has no such

ability, it may use either immediate (internal) or perceptual (external) knowledge of its own body to base its framework.

It is also worth noting that nothing has been said here about the place of mental, experiential control, as outlined in the previous chapter. Why this is so should be reasonably clear. Most mental, experiential control will not be spatial; it will usually involve focusing upon certain aspects of one's total experience at the expense of others (staring intently at the television to try and take one's attention away from one's sore ankle for example). While this would not be true of the psychokinetic creatures discussed in §1.4.4, it is not obvious that they would be able to employ any egocentric spatial frame of reference. Such frameworks are based upon one's possibilities for action; in the case of our psychokinetic subjects, their possibilities for action were constrained purely by their range of thought contents available to them, and it is not clear how this might be employed in the formation of an egocentric framework. There are further points to be made in this context, but these are best left aside for the moment and will be returned to in the light of the following arguments, when we will consider whether or not the addition of such control would make a significant difference to the subject's possibilities for conceptual thought. It is, however, worth clarifying that we have to treat egocentric frames as those frames that involve specifically non-mental, experiential control. This will be important in the following.

There might seem to be another reason for rejecting the first of the two distinctions. Even if we do grant that action does have a special connection to spatial thought, an objector might argue, this will be because spatial awareness is a precondition for action. That is, any subject with the ability to act must already be in possession of a fundamental framework—he or she must first be able to experience and/or think about space if he or she is to act within it. If this is so, such a framework cannot be an egocentric one, as this places the ability to act as prior to the ability to perceive space; the framework, then, must be based upon internal or external self-knowledge, and the first distinction (with which this section is concerned) drops out of the picture (the objection would continue).

Such an objection depends upon the failure to see an important third alternative to viewing either action or spatial awareness as more fundamental than the other; namely, regarding them as interdependent. There are good grounds for holding that this is indeed a possibility. The fact, as demonstrated by Campbell,¹³⁷ that we cannot identify egocentric frames of reference with frames based upon either internal or external bodily-awareness seems to provide such grounds—why this is so will become clear as we consider the different alternatives in turn. If thinking about space in terms of one's possibilities for action is not the same as thinking about space in terms of one's body seen as an object (either via internal or external awareness) then there must be another sort of spatial framework that needs to be considered. Given that the frames of reference are not identical we should treat each one in turn as a fundamental framework, and look for any further connections between them (which there may well be) in the light of this.

Let us turn, then, to egocentric frames of reference themselves. To employ an egocentric spatial frame of reference is to think about space in terms of one's own possibilities for action. It is to think of an object in ways that are to do with how one would go about reaching the object, or how one might interact with it and utilize it, or how it would feel if one were to manipulate it, and so on. It is to see places as possible locations for oneself and other objects, with the implicit understanding of what kind of thing one would have to do to go about getting to the place. The metrical structure of the space—that which gives content to the idea of distances between places or objects and gives us a unit of measurement—is determined in terms of the movements (e.g. paces) that we would have to make in order to travel between places or objects (whereas in the example of the Cathedral in §2.5 above this role was played by the spatial relation that held between the top of the spire and the location of the altar). When I think about how far away the computer's mouse is from me, I do not think of this distance in terms of centimetres or inches in the first instance; I think of it in terms of a certain type of bodily reach and a grab.

¹³⁷ Cf. Campbell (1994b), Ch. 1. One of the main aims of Campbell's chapter is, in fact, to demonstrate this claim.

For example, if I think in egocentric terms about a pen that sits on a table two metres or so to my left as I sit typing this, the thought comes with an implicit understanding of the kind of thing that I would have to do to get to the pen, such as avoiding the chair (regarded as an obstacle rather than a functional object in this context) and crossing the floor space between it and myself. This distance is thought of in terms of the movements I need to make should I want to get the pen, not in terms of metres or feet—or even in terms of the length of my various body parts.¹³⁸ As Peacocke states, “when we perceive distances [in “mechanical reasoning”—reasoning concerning physical interaction with other objects], we do not perceive them as having a particular magnitude in feet or in metres, not even if we do in fact know how long a foot or a metre looks”.¹³⁹ It also involves regarding the pen as something that is useful in terms of my actions and intentions, or at least as something with which I could interact if I chose to do so.

We should not be misled by the above into thinking that egocentric frameworks can only be used when thinking about (and having experiences of) our immediate present environment. Sitting at my desk, it is not true to say that I cannot think about the main desk of the university library in egocentric terms, or any other location. As stated at the start of the chapter, different frames of reference are just different ways of thinking about the same areas of physical space. There may be some areas of space that cannot be thought of in terms of certain of the frames (we will return to this in just a moment), but in general any area of physical space can in principle be thought about in all of the ways. Should, for example, you ask me (as we sit in the coffee lounge) where the button that switches on the rear windscreen heater in my car is located, one way that I can go about attempting to answer the question is to imagine that I am actually sitting in the car, and try and recall what movements I have to make in order to switch the heater on (reaching down to the left at *this* angle, or whatever). To think in this way would be to think egocentrically. This, of course, is not the only way in which I might go about coming up with an answer. I might instead call to mind the diagram of the dashboard from the owner’s manual that I

¹³⁸ See §2.7 for why this is so.

¹³⁹ Peacocke (1993), p. 163. See also §3.5.

happened to be reading earlier in the day, and try and recall the button's position from that. To think in this way would be to employ an absolute framework. There are as many different ways of attempting to find the answer as there are types of spatial framework.

It is worth pausing briefly to comment on an issue that arises from the preceding. It will also lead us nicely into the next point. I mentioned above the fact that we may not be able to think about *all* spaces in terms of all of the possible frameworks. Why say this? It might, after all, initially seem to go against what I have stated the frameworks are, namely different ways of regarding the same areas of physical space. The reason turns upon the defining feature of the object-centred frames (all the frameworks apart from the absolute one), i.e. the fact that they are centred upon specific objects. These objects are all of certain sizes, some bigger than others. And so are the areas of space that we might want to think about. The tension lies here. Imagine that we want to think about the particles of smoke that enter a smoker's lungs. There is no point in trying to think of such a physical, spatial process in egocentric terms—the distances are too small. How could we possibly think about the area of space inside our lungs in such terms? At the very least, it requires a good imagination. We might be able to think of it along the lines taken in the film *Fantastic Voyage* in which scientists are shrunk down and injected into a patient's bloodstream. We soon run into problems, though, when we attempt to think 'smaller', as it were. To attempt to think about the space between molecules in this way would be to stretch the facts of the matter well beyond breaking point—this is why the diagrams of molecules that we find in high school chemistry textbooks are at best schematic representations of certain aspects of the facts, and not actual pictorial simulacra. The same problems would arise if we attempted to use allocentric frames based upon medium-sized objects in the same situation. The choice of object for an allocentric frame must reflect the size of the object and the size of the area with which one is concerned. Alternatively, we can see the difficulties when we attempt to think of the vast distances between stars, or of the unusual topological properties of stellar phenomena such as blackholes. We simply cannot think of such distances or regions in egocentric terms, and this is

undoubtedly one of the main reasons why most people, when confronted with facts or theories about such things, find their minds well and truly boggled. Such terms as those employed in this way of thinking are simply not suitable for the task at hand. This is also one of the reasons why, as Campbell argues (*pace* Poincaré and other empiricists about spatial concepts), “the absolute conception should not be somehow reducible to, or definable in terms of, the egocentric spatial thinking used in perception and action”, although he does not mention this reason himself.¹⁴⁰

Thinking in this egocentric way about areas of space is the most familiar way we have of thinking about space. It is in many ways an animalistic way of thinking about space, involving as it does the concerns that we and other animals have and face in our everyday lives—finding food and water, shelter, other creatures of our kind; negotiating obstacles; travelling from place to place, etc. As fundamentally active creatures it is our primary way of viewing our environment. The fact that we standardly think of spaces in this way no doubt explains one reason why we find it extraordinarily difficult to conceive of both microscopic and macroscopic distances, and of the strange properties of quarks on the one hand and blackholes on the other. It is a straightforward—and not at all unexpected—fact that our minds work best in places and situations that are broadly amenable to animal life. Our spatial reasoning is no exception here.

Just as we used examples of concepts in the discussion of absolute frames, so we can use them here to illustrate just what an egocentric frame is, and how it differs from other types of body-centred frame. Take the concepts: ‘to the left of’; ‘to the right of’; ‘in front of’; ‘behind’. As discussed in §2.5 above, these can be used in relation to any body-centred frame of reference—their employment, that is to say, does not entail the use of an egocentric framework. We can employ these concepts in relation to objects other than ourselves; we can talk of what is in front of a table, what is to the left of that person, and so on. While these concepts undoubtedly involve a notion of body-centredness, there is no further requirement that the body involved must be one’s own body, never

¹⁴⁰ Campbell (1994b), p. 7; see also p. 19. See Poincaré (1913) and Brewer (1994) for the opposing view.

mind the requirement that there should be some connection to one's possibilities for action, both of which are preconditions for a framework being egocentric. Campbell makes basically the same point by stating that a frame of reference can be centred on a body—can have a physical object as an origin—without being an egocentric frame.

Some of the concepts that would be relevant to an egocentric frame would include those from the body-centred cluster above insofar as they can be directly employed in action and its direction ('directly employed' in that we need not consult any external authority in order to understand and employ the concept, as we would have to do in the case of 'north', for instance, where we would have to consult a compass (or the sun) and then relate the resulting reading to our egocentric frame in order to see what we would have to do to obey the command 'go north!'). This seems to give us some reason for holding that to at least some extent, *pace* Campbell, egocentric frames are a type of body-centred frame.¹⁴¹ Other relevant concepts would be ones such as 'a short walk away' or 'within striking distance'; that is, those concepts that immediately and exclusively pertain to action.

The difference between egocentric frames and other frames that are also centred upon our bodies can be made clearer by considering these other frameworks. I want now to move on to discuss these.

§2.7 *Body-centred spatial frames: external vs. internal*

§2.7.1 *Frames centred via external awareness*

Just as we can centre frameworks upon a building like a cathedral, so can one be centred upon a human body. The bodies of living creatures are objects every bit as much as inanimate items such as rocks and stones are, and as we saw a framework can be centred upon any object whatsoever. Imagine, for example, Prometheus, forever chained to a rock by his fellow gods for stealing fire. It would be easy to base a framework on his stationary form, with the axes based upon the line of his enchained limbs. We can equally well use our own bodies to

¹⁴¹ Cf. Campbell (1994b), pp. 10-12.

play the same role. Moreover, we can use the perceptual knowledge that we have of our bodies to ground the frame.

To use perceptual or observational knowledge of oneself to provide a suitable structure on which to base the axes of a spatial frame of reference is to define the axes of the framework *externally*. Of course, most of the knowledge that we have of our bodies is not observational knowledge in this sense. We do not gain much of our self-knowledge by seeing or touching ourselves. Most of our self-awareness comes at a more basic level, and the use of this internal awareness for the task at hand will be discussed in the latter half of the present section. Nevertheless, we can imagine occasions when such frameworks would have to be employed, and such perceptual knowledge would play a central function here.

Consider the situation of an individual lying on a hospital bed with a broken leg, the leg numb and in plaster. Should our unfortunate patient wish to direct a visiting friend to her bunch of grapes (which somebody has thoughtlessly left out of reach at the other side of the room, beyond the end of the bed), she might do so by telling the visitor to look down the length of her broken leg, and then go one metre to the left. The patient is not pointing with her leg—this would involve some degree of control, and a deliberate positioning of the leg which would be beyond the patient in her current state—but rather using her leg as she might use a stick or a crutch which was similarly positioned. That is, she *sees* that this object (which happens to be her own (still attached) leg) is suitably positioned to act as a reference point, or as the locus of a frame of reference, and employs it as such (the fact that the leg is numb prevents her from being immediately aware of its useful position). Observational knowledge of her own body is used by the patient to centre a frame of reference.

It is undoubtedly hard to imagine a creature whose self-awareness was completely based upon self-observation, but that is not to say that we can dismiss the possibility out of hand. One initial attempt might be to imagine a small, cross-shaped, crab-like creature with two pairs of eyes, one eye at each end of its four limbs which lacked all proprioception. If these eyes looked back in upon

itself, towards the opposing limb (almost as security cameras might monitor the compound in which they are located), then it could observe almost all of its own body. What is more, it would seem that its cross shape might allow it to centre a spatial framework upon itself (as it appears to itself) in a fairly straightforward manner. As with all of the other types of frame above, we will return to it and the possibility that it might act as a fundamental framework in the following two chapters.

§2.7.2 Frames centred internal awareness

The other way in which a subject might centre a frame of reference upon his own body would be by using proprioception to provide the necessary resources for the centring of a frame. By ‘proprioception’ here I mean the immediate awareness that one has of the parts of one’s body, irrespective of whether we want to treat this awareness as a particular sort of perception, as O’Shaughnessy does, or as an immediately given awareness (in another sense of ‘immediate’) of posture that involves none of the features—such as the ability to selectively attend to aspects of that which we are perceptually aware—that are standardly found in cases of perception.¹⁴² The sort of immediate awareness in which we *are* interested in the present part of the section is to be understood as contrasted with cases whereby we gain knowledge of (parts of) our bodies through looking at them, feeling them with our hands or generally inspecting them in any way along such lines, i.e. as mediated by another sense. These would constitute external grounds of bodily awareness in terms of the present distinction of this section (and as discussed in §2.7.1 above). In the case of proprioception we might say that the axes of the framework are defined *internally*. Now that we have a clearer picture of the distinction between *external* and *internal* awareness, we can see why the distinction was not brought into play with the other body-centred group of spatial frameworks—allocentric

¹⁴² Cf. O’Shaughnessy (1995), §1. Andy Hamilton provides an example of someone who wishes to deny that proprioception is a form of perception at all (cf. Hamilton (forthcoming)). The issue is further clouded by the various different theories of perception available; in particular, sense-data theories (one of which O’Shaughnessy subscribes to) with their postulation of a mediating sensory field between object of perception and perceiver pose problems for talk of ‘immediacy’ in that different levels of immediacy soon start to arise. I want to set these issues aside for the moment and use the term ‘proprioception’ in just the sense given, without (for the moment) further theoretical baggage. I will return to some of the related issues in §4.3 below.

frameworks—discussed above. In the latter case the relevant objects can only by definition be considered externally and not internally.

This immediate awareness of the layout of the body is given by possession of a *body-image*, or more specifically what O'Shaughnessy calls a '*short-term* body-image',¹⁴³ which is the image of that which is potentially perceptible via proprioception at any given time—i.e. the awareness of the particular positions of (and relations between) the various parts of one's own body at any given time. The suggestion is that possession of this body-image will allow the subject to derive a spatial frame of reference based upon his immediate awareness of the current arrangement of his body parts.

This can be illustrated in the following way (this should help clarify this sort of case from that discussed in §2.7.1 above). Imagine a person chained to a wall in such a way that he is utterly unable to move. He is also blindfolded. This captive is, however, completely aware of his current physical position (he has not gone numb, that is to say). Upon the arrival of a comrade, the captive has to direct his potential liberator towards his jailer's keys, which hang on a nail on the wall. Now he cannot do this by pointing, nor can he use the same method employed by the patient above (he is blindfolded). If we assume that he knows the location of the keys (from prior experience, say) then he would be able to tell his colleague to follow the direction of his left arm, where he should find the keys at a distance of around two metres. He knows that his arm is suitably located precisely because it is his arm, and he is proprioceptively aware of its position (in the same way that one could describe the position of one's legs despite the fact that they are tucked under a chair). Here we find a framework based upon a subject's internal knowledge of his own body.

We can now see that another reason arises why we should not regard egocentric frames as equivalent to either of the sorts of body-centred frames that we have just looked at.¹⁴⁴ The axes employed in action (and thought about action) are not necessarily defined in terms of the structure of the agent's body

¹⁴³ More specifically the (γ) short-term body-image. Cf. O'Shaughnessy (1995), §3; and §4.3.2 below.

(this is why Campbell claims that egocentric frames are not body-centred frames). That this is so can be seen from the use to which we put the concepts ‘up’, ‘down’, ‘above’ and ‘below’. These are employed in action; to see that an object is located three metres in front of and one metre above you is in part to see that different movements are required to reach that object than would have been the case were it three metres in front of you and lying on the ground. We do not, however, define ‘up’, ‘down’, etc. in terms of the body’s structure in all, or even most, instances. These take their meanings from the gravitational field in which one is located. If one is upside-down seeing what is above you, or obeying the command ‘look up!’, requires looking towards one’s feet. It is interesting in this context to consider the meanings that these terms might have outwith any gravitational field. In order to employ these terms in such an environment, we would either have to specify which direction is up and which down by reference to the physical layout of our surroundings—such as calling the direction that pointed towards the pole star as ‘up’—or use the long axis of our body and the asymmetry found here to give the terms meaning—whatever direction the line from one’s feet to one’s head pointed would be up. In this latter case, it is worth noting, such concepts would be employed in a way not dissimilar to the way in which we now employ ‘left’ and ‘right’.

This, then, is the range of different spatial frameworks on offer. As already stated, in the next chapter I want to go on to consider which if any of these could act as fundamental frameworks. I will argue that certain of them cannot fill this role; in particular, I claim that for any of the above frames either they cannot act as a fundamental frame of reference or they are implicitly connected to a subject’s ability to act. The present stage of the dialectic can be represented by the diagram below.

¹⁴⁴ Campbell also makes just this point. Cf. Campbell (1994b), pp. 14-15.

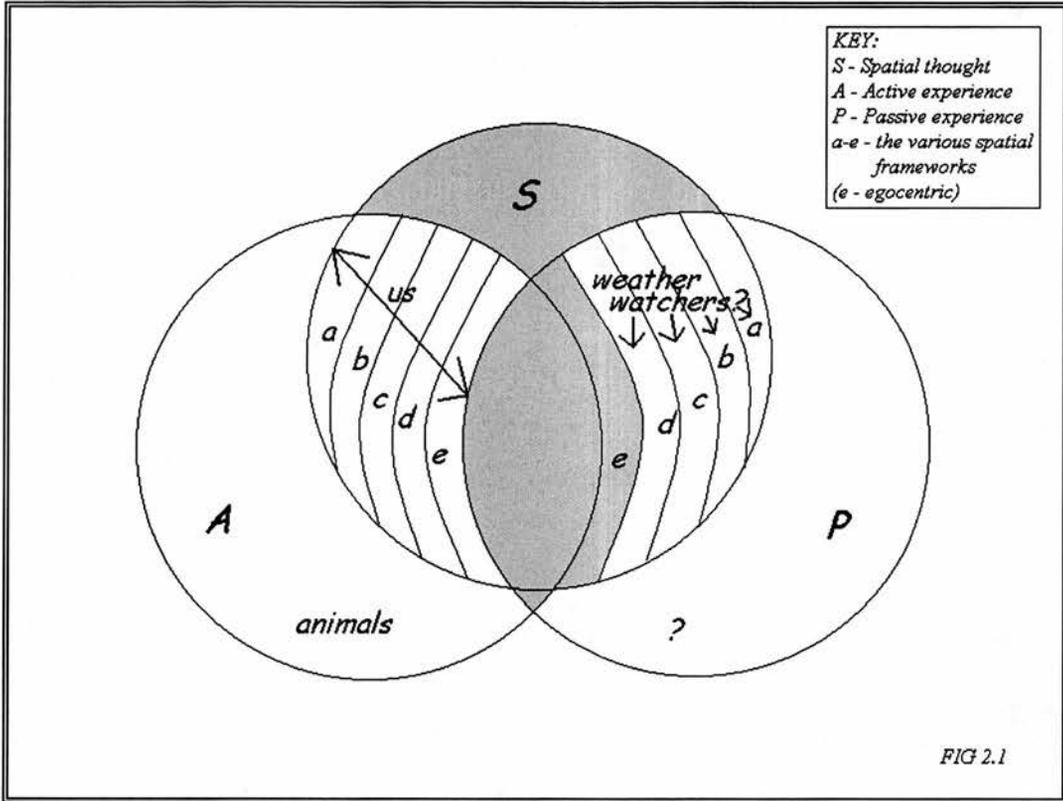


FIG 2.1

Chapter Three: **Non-Egocentric Frames & the Spatial World (1): The Environment & Other Objects**

In this chapter I try to demonstrate that all the various non-egocentric spatial frames of reference (as outlined in Chapter Two) are insufficient to act as a fundamental framework for our hypothetical Weather Watcher.

§3.1 Introductory comments: fundamental frameworks without action

In the first chapter we considered the case of Galen Strawson's Weather Watchers, and the various ways in which we might be able to control our experience. What was interesting about the Weather Watchers (at least in our revised version of the story) was that they were completely unable to control their experiential intake in any way (they could not move their bodies or their sense-organs, or even actively focus their attention) yet, so the claim went, they possessed a full complement of concepts relating to "an objective, spatial world".¹⁴⁵ I wanted to dispute this claim, as it goes against the relationship between activity and spatial thought that I wish to propose. In order to do so, I tried in Chapter Two to approach the various ways in which a subject might be able to think about spatial relations, locations, etc., by outlining all the various conceptual spatial frames of reference that might be employed in the subject's thought. The thought was that if it could be shown that any of the possible spatial frameworks detailed in Chapter Two had no connection to activity, yet could be employed in isolation from any other framework with such a connection (that is, employed as a fundamental framework), then it would seem that there was a possible mode of spatial thought that the Weather Watchers would be able to engage in, and therefore that my proposed thesis could not hold.

¹⁴⁵ G. Strawson (1994), p. 251.

In this chapter and the next I want to set aside the class of egocentric frames—those frames with a connection to action—and focus upon each of the remaining frames of reference to see if it is conceivable that any one of them could function as a fundamental framework. I will argue that none of these spatial frameworks can be employed in this role—that not one of them can meet all the requirements laid down in §2.3. In other words, I want to eliminate these frameworks from the class of possible fundamental frameworks, leaving only those frameworks with a connection to action. This, I should add, should not be read as suggesting that such frames cannot be possessed or employed at all; I only claim that such frames cannot be possessed or employed independently of an egocentric framework. After all, we do sometimes think about areas of space (and so on) in terms of each of the frameworks outlined in Chapter Two—the claim is just that we can do so only in virtue of the fact that we also use egocentric frames of reference.

Given that egocentric frames of reference do possess the sort of link to action the necessity of which I want to argue for, we can set such frameworks aside for the present chapter. That leaves us with:

- absolute frames;
- allocentric frames;
- frames centred upon the subjects own body via external self-awareness,
- frames centred upon the subject's own body via internal self-awareness.

We will look at the first two frameworks in this chapter, and the last two in Chapter Four. I will examine ways in which the Weather Watchers might employ each of these frameworks in turn by adding to Galen Strawson's thought experiments in such a way as to provide illustrations of each of the frames, and then we will look at some reasons that might lead us to reject the possibility of these scenarios. It is worth bearing in mind the fact that the list of frameworks is exhaustive—if a subject is to think spatially, she must do so by employing one (or more) of these frames of reference. The Watchers, then, must be able to employ a spatial frame of reference if Strawson's 'argument by description' is to hold any water. That is the point of fleshing out the story in the various ways that

correspond to the various types of framework. At least one of these amended scenarios must be possible if Strawson is correct to deny that there is any connection between spatial awareness and the experience of agency. The arguments to the contrary that I will offer turn upon the issue of whether or not a subject could employ certain fundamental, spatial concepts within certain forms of experience—or, to put it another way, whether certain sorts of experience could support the application of these concepts. In this way, they are somewhat similar in approach to P. F. Strawson's famous thought experiment concerning the auditory universe.¹⁴⁶ I will touch upon the similarities later in the present chapter.

It should also be remarked that just because egocentric frameworks have an obvious connection to action and thus (it will be argued) are essential for any subject who is able to employ spatial concepts, it does not follow that certain of these other frameworks may not also be of considerable importance. For example, it may well seem intuitively plausible that an immediate awareness of one's own body as a physical object and an ability to think about it in just this way (that is, to employ the fourth framework listed above) is of crucial importance when looking at one's ability to think about space as the domain which one inhabits as one body amongst others. This may well be so, and the present and following chapters do not rule out this possibility. They only attempt to show that such frameworks cannot stand alone without egocentric frameworks; one's ability to bring about interaction with the objects of one's environment is of primary importance in the explanation of one's spatial awareness.

§3.2 *Absolute frames of reference: maps & legends*

Absolute frames of reference are those frames that are not centred upon a particular physical object and based upon its structure. The most straightforward representations of an area of space considered absolutely would be those suggested in §2.4, namely a map or a three-dimensional model. Neither presuppose a particular point of view, i.e. they are not centred upon any particular object, be it a feature on the map or a part of the house. On the one hand, a map

¹⁴⁶ As mentioned in the Introduction.

need not even be similar in appearance to the place represented, in that, firstly, we will need a legend or a key to interpret the lines and symbols, and, secondly, certain maps, such as those of the Earth's surface, will have a shape or a form that the area represented physically could not take (i.e. they are conventional representations rather than naturalistic ones). Given this, we could not use the physical properties of anything so represented to base a series of axes by which we might locate all other objects and locations represented, as the map need not capture these specific properties (e.g. shape or size). On the other hand, a model of an area of space (such as a model railway with surrounding scenery) or a spatial object (a model of the Eiffel Tower, for example) will leave room for the subject's own point of view as she inspects it—the whole area represented is open for inspection—unlike, say, a photograph that by its very nature represents space from a particular point of view. With the model the whole area is represented as of equal importance; there are no parts of the model that are presented only in virtue of their relations to a specific other part which is playing the role of a central locus. For the sake of simplicity I want to stick with the example of a map for the rest of this section.

Is it, then, conceivable that a sentient creature would be able to think about space in a way that was fundamentally absolute? Could there be a being that regarded space exclusively in the way that we might regard a map of a far distant land?

One thing that we must remember is that employing an absolute framework is not the same as employing what we might call a *hypothetical egocentric framework*. To consider an area of space in absolute terms is not to think about what it would be like were one to find oneself in that space, what one would see and do were one at such a place. This would be to think egocentrically about an area of space in which one was not located. This distinction can be seen from a possible ambiguity in the example of the map of a far land. We could look at such a map and think what we would see were we at a certain point in the area represented (e.g. the cliffs and ocean would be down to the left and to the fore, with the hills rising behind and on the right); alternatively, we could just be reading the map and understanding what was represented with no such thought as

to what it would be like to be there. Only the latter sort of thought could be correctly characterized as employing an absolute frame of reference. We can also think about the place in which we happen to be in absolute terms, for example by imagining how it might be represented schematically by a draughtsman's blueprints, and this should also serve to illustrate the difference between the two types of framework.¹⁴⁷

We might initially think that it is conceivable that there could be a being who was able to think about space in absolute terms, regarding each place as of equal importance as every other, without focusing upon any particular object or feature of that place; perhaps such a being could think about space only in the abstract. It might even seem that this is the conception of space that many would want to attribute to a divine being, or to incorporeal Cartesian egos of some sort. It is harder to see what sort of connection an absolute frame might have with experience if it is employed as fundamental by a physical subject, especially given the seeming lack of any point of view whatsoever in such frames. I will try to suggest a possible scenario that will allow us to avoid this tension in the following by trying to describe a form of experience that lacks a standard perspectival element. Nevertheless, I want to argue that, contrary to any intuition to the reverse that we might have, it is inconceivable that any creature would be able to employ such a mode of thought as its fundamental spatial framework.¹⁴⁸

There are several connected reasons that come to mind for denying the above suggestion that such beings could exist. These concern the extent to which it would be possible for the creature to understand just what was being represented in experience. However, before considering these let us try to arrive at a suitable hypothetical example of a creature who might employ such a

¹⁴⁷ There are those who would reject this distinction, as noted in Campbell (1994b), p. 19. He picks out Poincaré's rejection of absolute space in Poincaré (1913). Such a rejection need not turn upon one's empiricist inclinations (as was the case with Poincaré), however. Rafael E. Núñez's unusual assertion that "an ontological objectivist view ... implicitly supposes the presence of ... some ideal transcendental observer" (Núñez (1995), p. 156) implies a rejection of absolute space for decidedly non-empiricist reasons, for example. Brewer also raises some questions about the necessity of such a strongly objective notion of space in Brewer (1994). Such issues should not concern us at present; in the context of this dissertation, to reject absolute spatial frameworks would merely be to reject an apparent possibility that I wish to argue against.

¹⁴⁸ I suppose that a divine being might, but this would turn upon the fact that it stood in a different relationship to the world (i.e. it created it).

fundamental framework. Take the Weather Watchers. Now, it is a plausible claim that the sense-organs that creatures possess will generally reflect their needs and desires. This is only to be expected if we accept standard Darwinian evolutionary theory. What senses might the Weather Watchers possess? Given that we are interested in creatures that might utilize absolute spatial frameworks as their fundamental frames of reference, we can imagine the following story (we will use the suffix '1' to denote this particular breed of meteorological addicts). The Weather Watchers₁ live on the coast nearby a range of mountains, and exist in a symbiotic relationship with a life-form that inhabits a valley further inland. Rather than living off each other—providing each other with food or shelter, or whatever—the two organisms trade information.¹⁴⁹ The extremities of the Weather Watchers₁' bodies contain parts that are sensitive to humidity, air pressure, and wind speed, but the Weather Watchers₁ are not capable of gaining knowledge about such environmental features from them—they either cannot understand the relevant sensations in this way or they do not experience them at all (their experience is not as fine-grained as it could be given their bodies). They, however, automatically and unconsciously transmit the facts about their extremities to the other creature (much as a data-collecting machine might), who can interpret them in the appropriate ways (i.e. as about air pressure, etc.)—let us call this other creature the Forecaster. The Forecaster needs this information as it inhabits a valley prone to flooding, and so needs advance information about the weather conditions nearer the coast so it can evacuate its habitat when necessary (it is a rather slow moving creature). The other side of the partnership is demonstrated when the Forecaster sends the results that it extrapolates from the data back to the Watchers₁. In other words, it sends them a weather report. Given their obsessive interests, this is very welcome indeed. This forecast comes not as a linguistic report, but rather in the form of a sensible two-dimensional array which uses established conventions concerning representation—in other words, they receive a broadcast weather map. This is the form in which their experience comes. This map represents the wider area inhabited by both species, and also includes information about the locations of the various Weather

¹⁴⁹ 'Information' in the weakest sense, that is, as can be seen from the following.

Watchers₁. This is how the Weather Watchers₁ get their information about the weather—they get to watch the weather.

As it stands, this seems to be an ‘argument from description’ every bit as valid as Galen Strawson’s. The question is, however, could the Weather Watchers₁ understand the forecast map? Would they be able to understand it as a map—that it represents an objective, spatial environment in which they are located?

One thing that stands out about this form of experience is that it is not perspectival. It does not, that is to say, present the area of space from a particular point of view. Instead, there is simply no point of view implicit in the experience at all. Describing such a form of experience seems to be the most appropriate way in which we might connect an absolute framework to a subject’s experience. As far as this goes, though, it does not suggest that a subject whose experience contains a suitably perspectival element could not employ an absolute framework as fundamental. Such a claim might be counter-intuitive (after all, how could an absolute framework be embodied in perspectival experience?) but it would be unwise to dismiss it out of hand. Hopefully, however, we will not need to address this issue, as the arguments below do not turn upon the lack of such a perspectival element, and thus the matter of whether a subject with such a fundamental frame could possess perspectival experience will not affect their outcomes.

§3.3 *Allocentric frames of reference: rocky mountain high*

We can turn now to the second sort of framework available, namely the allocentric frame. If we remember, an allocentric frame is a one which is centred upon an object other than the subject’s own body. We might employ such a frame when describing the features of a remote place by focusing upon one central object and specifying where all else lies in relation to that. Diagrams of the solar system, for example, generally take the sun as a stationary point of reference and use this to locate the various planets.

The Weather Watchers may take a similar approach. As we have noted, they are fundamentally interested in the weather. If we imagine that they do actually exist in the locale described in §3.2 above, we can note how the Weather turns upon the nearby mountains. Now, say that there is one mountain far higher than any of the others. It is an impressive sight, its top wreathed in clouds most of the time, prone to sudden changes in weather conditions (as mountains are). It seems reasonable to suggest that the Weather Watchers would be very interested indeed in such a local feature. In fact, they might even devote their entire attention to it, centring their spatial frame of reference upon it. These Watchers—the Weather Watchers₂—do exactly this.

The mountain is the most important feature in the life of a Weather Watcher₂. Everything of interest depends upon it. Because of this, the mountain acts as the focal point of their local environment for them, and they go as far as to centre their spatial frame of reference upon it. Should they attend to any other physical feature nearby, they do this by relating it to the location of the mountain. All other locations are specified in terms of the mountain's location. The question here is whether the Weather Watchers₂ would be able to think spatially in only these terms—could a creature be spatially aware by using an object other than its own body to centre its fundamental frame of reference?

John Campbell discusses two real-world examples that seem to embody just such a situation. Despite the terminological problems concerning the different usages of the term 'frame of reference',¹⁵⁰ and despite the fact that Campbell is actually discussing animal behaviour (i.e. type 2 frames of reference), the cases are still relevant. If we wanted, we could emphasize this fact by imagining that the sort of subpersonal frames that Campbell outlines underlie the full-blooded conceptual ones with which we are concerned (i.e. treat them as being type 3 frameworks, with the close connection to conceptual capacities that this involves). The first case involves the behaviour of rats in a water maze. When placed in a tank of opaque liquid with a target platform which sits just under the surface of the water. The rat can learn how to makes its way to

¹⁵⁰ See §2.1.

this platform, by noting the distances from the platform to various landmarks at the side of the tank. When placed at another point in the tank it then notes the new distances to the various objects, and if they are further away than they appeared from the platform it will swim towards them, if they are closer it will swim away. By using this method the rat can reliably make its way to the target.

The interesting feature about this case is that the rat is employing a form of triangulation to find its target. Its frame of reference is based upon the distances from the hidden platform to the various items surrounding the pool. The second example outlined by Campbell (which originates from John O'Keefe)¹⁵¹ is rather more abstract, and more suited to his purpose than the present one. Nevertheless, we can imagine how a framework built upon the following lines might be employed by a Weather Watcher₂ as its fundamental framework. It is worth quoting at some length from Campbell here.

On this model, the *slope-centroid model*, there are two stages in an animal's construction of a map of its environment. The animal identifies a notional point in its environment, the centroid, which is a notional point in the sense that the South Pole or Equator are notional: there may be no distinctive physical feature at that place. It is a fixed point, in that it does not move with the animal. The animal also identifies a gradient for its environment, a way of giving compass directions. This is the slope of the environment. It functions like the direction east-west ... [and] the direction is fixed. ... Once the animal has done this, it can construct a map of its environment by recording the vector from the centroid to each of its targets, using the slope to define direction.¹⁵²

We can see how the Weather Watcher₂ might employ such a frame of reference. The top of the mountain would provide an obvious centroid, and the rolling hillside from mountain to valley would allow for the establishing of the slope-direction. The Watcher₂ could then derive the vector from itself to a target object from the vectors from itself to the centroid and from the target to the centroid. That is, any grasp of the position of an object would proceed via an awareness of the location of the mountain. 'Location' for the creature would effectively mean 'location relative to the mountain'. In such a way the frame would be an allocentric frame, centred as it is upon the mountain (because of both the location of the centroid and the use of the mountain's slope) rather than

¹⁵¹ See the citations in Campbell (1994b).

the Watchers₂' own bodies. There is no reason in principle that would suggest that we could not think of all locations in just such a manner; in fact, given the fixed nature of the Watchers₂ and the sloping nature of their local environment, this framework might seem ideal for them. However, as I will try to show, the Watchers₂ could not meet the requirement of physical significance outlined in §2.3 above, nor would they be able to grasp the fact that *they* (i.e. the subjects of experience) were located within the physical, objective space. I want to turn to a consideration of these issues now.

§3.4 Concepts, experience and transcendental arguments

In this section I want to consider two lines of thought that seem to suggest that the above scenarios are not possible, each relating to one of the requirements that must be met if a concept is to count as a *spatial* concept, as proposed in §2.3 above. The first turns upon whether a Weather Watcher of either of the above varieties (Weather Watcher₁ or Weather Watcher₂) would be able to locate itself within the space presented in experience; that is, whether it could identify itself as an item of the sort that it perceived. The second relates to the requirement that a subject should be able to give physical significance to areas of space if it is to truly grasp and employ spatial concepts. We will look at these in turn.

Before doing so, it is worthwhile making some general comments concerning the general form of the arguments. The line of thought in the following sections turns to a large extent upon the connection between possession of concepts and experience. We have already seen some indication of the strength of this connection, in the brief discussion of the application conditions concerning concept possession and application in §2.2. There I suggested that we could not make sense of the idea that a subject might possess concepts—in particular, experiential concepts, i.e. those concepts whose primary application is within experience or thought about experience—without being (even in principle) able to apply them within her experience. The example used there (which we will again touch upon in the present chapter) concerned the idea that those individuals blind from birth might still possess colour concepts.

¹⁵² *ibid.*, p. 23.

Instead, the most that they could possess would be certain dispositions to develop concepts upon the having of suitable (i.e. visual) experience. It makes no sense to suggest that a subject could possess concepts separately from the ability to apply them within experience. A claim to the contrary, of course, can be treated as a claim concerning the possibility of innate concept possession, and we will look at this issue in some detail in §3.7.1 below. For the moment we can note that at its most extreme, such a claim would seem to have the consequence that a subject could have any and all thoughts containing, for example, colour concepts, without ever having had visual experience. And this is surely false. To take such a position would be to ignore Kant's insights concerning the inter-connections between concepts and intuitions, the faculties of understanding and receptivity. P. F. Strawson expresses the fundamental connection between concepts, experience and thought in the following:

It is not that experience is, as it were, simply a convenient link to the world; enabling the concept-user to go into action as a judgement-former with a fair prospect of forming true beliefs. The connection between judgement, concept and experience is closer than that. The connection is, rather, that concepts of the real can mean nothing to the user except in so far as they relate, directly or indirectly, to possible experience of the real. It is not just that without experience of the real we should not be able to form true beliefs about it; it is that the very concepts in terms of which we form our primitive or fundamental or at least theoretical beliefs get their sense for us precisely *as* concepts which we should judge to apply in possible experience situations. ... [W]hat I am putting thus crudely and roughly is the central tenet of *empiricism*. It is the truth upon which Kant insisted decisively, and on which all empiricists before and since have insisted.¹⁵³

The basic point (and the point upon which the following arguments depend), then, is the Kantian point that concepts without experience are empty, lacking any content. P. F. Strawson's discussion of the auditory universe was intended to press the question of whether auditory experience (as a form of 'inner' sense) was enough to allow the subject to bring to bear objective concepts;¹⁵⁴ in the present chapter, we will be concerned with the parallel issue of whether purely passive experience is enough to allow the subject to employ spatial concepts. We can also phrase this in terms of whether passive experience

¹⁵³ P. F. Strawson (1992), pp. 52-3.

¹⁵⁴ P. F. Strawson (1959), Ch. 2.

can support the application of certain spatial concepts—that is, whether passive experience allows the subject to employ (or meet the application conditions of) the concepts in question.

The following arguments are, then, transcendental arguments, at least under some uses of the term, in that they set out to uncover some of the preconditions for spatial awareness, even though their principal aim is not to tackle a particular form of scepticism.¹⁵⁵ They are not, however, transcendental arguments of either of the two following familiar sorts: (1) possession of certain concepts entails that the world is such-and-such a way (strong transcendental argument); (2) possession of certain concepts entails possession of other specific concepts (weak transcendental argument).¹⁵⁶ Rather, they claim that the possession of certain concepts entails the having of certain sorts of experience. They go further than the weaker sort, in that, in the present case for example, the claim is not just that we must conceive of ourselves as having a certain sort of experience but rather that we must actually undergo active experience, as will be clear from the following arguments. However, my arguments are weaker than those which would fall under the first category, in that we cannot conclude from the following arguments alone that we must *act* in an external, physical world in order to possess and employ spatial concepts. Such a conclusion is only possible if one admits that active experience (the experience as of acting) is only available to creatures who truly act. The connection between active experience and action and the extent to which a being might have the former without the latter was discussed in §1.4 above.

Strawson's thought experiment concerning the auditory world can provide us with a good example of this kind of argumentative structure. Despite

¹⁵⁵ Bennett (1979), for example, defines transcendental arguments in terms of scepticism. However, there is no reason why we should not treat Galen Strawson's argument by description as a form of scepticism concerning the place of activity in spatial awareness, although this is not the approach I wish to take. Stroud also favours the anti-sceptical reading of such arguments (cf. Stroud (1968) and Stroud (1979)).

¹⁵⁶ See, for example, A. C. Grayling's discussion 'Transcendental Arguments' in Dancy and Sosa (eds.) (1992), pp. 506-9. The distinction here is basically that between Grayling's 'option A' and 'option B' transcendental arguments. Stroud famously claimed that many apparently A-type arguments were actually of the latter, weaker variety (in Stroud (1968)).

the fact, as Bennett points out,¹⁵⁷ that Strawson's discussion is actually inconclusive—Strawson himself does not take it to be decisive one way or the other—there are transcendental arguments that can be extracted from the chapter. Evans, in his commentary on the chapter, presents an argument of the relevant form that he finds there.¹⁵⁸ This argument proceeds in terms of receptivity, and its target is the idea that a being with only auditory sensory intake—an occupant of Strawson's 'auditory universe'—would be able to arrive at an understanding of an objective world. The aim of Strawson's thought experiment was to uncover certain preconditions for grasping the notion of objectivity, and in particular to explore the connections between spatiality and objectivity. Despite the fact that Strawson's aim was somewhat different to our own, both this argument and Strawson's other argument concerning re-identification are relevant here. It is worth outlining briefly the first of these arguments here in order to highlight the similarities that will come out, particularly with the second of the arguments presented; the extent to which there is a similarity should come out in the following. The Strawson–Evans argument relates to the claim that part of what it is to make sense of the notion of an objective world is that one can grasp the idea that items in this world (sounds in the auditory case) can exist unperceived. Given that Strawson is testing the connection between objectivity and spatiality in order to see how closely connected they actually are, he attempts to find a way in which the subject could make sense of existence unperceived without relying upon the idea of space. For example, one way in which something might exist unperceived is that we are simply located in such a way as to make perception of it impossible—it can be perceived from certain places, none of which I currently occupy. A grasp of this would implicitly presuppose a grasp of spatial concepts. The subject needs some other way in which to make sense of existence unperceived.

There are two other ways in which one might make sense of the idea that something in principle perceptible is presently unperceived. One relates to the state of the subject—there is something about him making him at present

¹⁵⁷ Bennett (1979), p. 56. Strawson's argument is not transcendental in Bennett's sense of the term because of this inconclusiveness.

¹⁵⁸ Evans (1980), pp. 87-94.

unreceptive—and the other relates to the state of the world—there is something about the local environment which makes it presently unsuitable for the relevant type of perception. Evans presents detailed arguments that attempt to rule out the auditory subject's access to both of these ways of grasping the idea of existence unperceived. We only need look at the former within the present context.

Evans' Strawsonian argument as to why the subject of the auditory universe—'Hero', as Evans calls him—cannot make sense of the idea that an object can exist unperceived by drawing on the notion that he might be presently unreceptive provides the interesting parallel with the argument below in §3.6. The suggestion that Strawson rejects and Evans argues against is that Hero can grasp the idea of existence unperceived by employing the concept of receptivity. The reason why he cannot do so is that he cannot give suitable content to the idea that he is receptive. What Hero needs is a criterion for being receptive that does not immediately depend upon his perceiving, and this he cannot do. As Evans puts it:

Hero [should] be able to appeal to the counterfactual conditional 'If I had been receptive, I would have/would not have heard a tick'. But such a conditional is quite vacuous if the only possible conception that he can have of his being receptive at that time is simply that of being able to hear what is there to be heard.¹⁵⁹

In other words, Hero cannot find suitably an independent criterion for a grasp of receptivity that would allow it to support a notion of existence unperceived. The two conceptions are too interdependent for it to be of any use, and there is nothing else present in experience to provide an independent basis for either. As Evans points out at length, there is nothing wrong with holistic interdependencies on the whole, but the circle is just too tight here.¹⁶⁰

The structure and approach of this argument, then, should provide one with some idea of the general form of the line that I wish to take in the following. It is the connection between concepts and experience that is of paramount importance throughout, not the connection between different concepts, nor that between concept and world. There are, of course, various objections that have been offered against such an argument (Galen Strawson for one has a number of

¹⁵⁹ Evans (1980), p. 94.

objections), and these will be considered after we turn to the arguments themselves.

§3.5 Subjects, objects & self-recognition

We saw in §2.3 that any creature able to think spatially must grasp the fact that it exists within space.¹⁶¹ Without such an understanding, a subject would be unable to understand the relational nature of perceptual experience, i.e. the fact that in such experience one is presented as standing in certain causal relations with that which one perceives. The subject also has to be able to make sense of the fact that it is only because the present situation is suitable for perception that it has any perceptual experience at all. Its perception might be frustrated in any one of a number of different ways: the subject might become unreceptive through the relevant modality; the target might no longer be perceivable; conditions might become unsuitable for perception; something else might intervene between subject and target. Without a conceptual grasp of such possibilities, we could not ascribe *perceptual* experience to the subject; there may still be experience, but it would be more akin to sensation than perception.¹⁶² That is, we might allow that in the absence of such understanding the subject could still have some rudimentary form of experience, but that this experience could not represent to it anything other than its own present state—that it is warm, that it is in pain, that it has a sensation of red, and so on. Such contents do not entail any grasp of the fact that experience is the result of a causal process which involves both oneself and something other than oneself, as an understanding of perceptual experience does. The Weather Watchers_{1,2} have to meet this requirement as well.¹⁶³ In the present section I want to explore what is involved in the understanding of one's status as a subject of perceptual

¹⁶⁰ *ibid.*, pp. 91-3.

¹⁶¹ Such a requirement also holds in the case of non-concept users, as will be discussed below.

¹⁶² We might not insist that all subjects of perceptual experience are able to elucidate all the ways in which their experience might be hampered. A fairly young child, for example, might not be able to express the idea that the properties of the target object change in such a way that they no longer register with her senses. However, we would expect even a child to be able to make sense of some of the possibilities—that the car is too far away to be seen, that the light has been switched off, that her eyes are shut, and so on. Such a grasp will usually be manifest in her behaviour even if it is not verbalized. (It is also worth noting here that children can standardly make sense of the idea that an object might be invisible.)

experience, and then consider whether the Watchers would be able to arrive at such an understanding.

The first issue I want to consider in this context is how the Watchers must conceive of themselves. Need they identify themselves as physical objects, or is there a different conception available to them? John Campbell has argued that there is a way of thinking about space employed by some creatures in which objects seem to play no central part.¹⁶⁴ Instead, this form of thought relies upon the existence of stable, spatial features within the environment that can be employed by the creature as landmarks that provide it with a spatial structure. To get some feel of this idea, let us imagine a small rodent living in the caldera of an extinct volcano. Rather than by identifying places in terms of the objects located nearby, it navigates through its environment by using certain remote but striking features of the rim of the basin. At one point there is a particularly large and unusually shaped rock, at another a gap in the rim, at another a weather monitoring station, and so on. Of course, the creature does not identify these as such; it merely has the ability to discriminate between these features at the edge of its environment and others. It gets about the floor of the crater by remembering how these key features appeared from its burrow, and from the good source of food, etc., and moving either towards or away from these features until their present appearance matches that seen from the desired location. Say that it wants to go from its burrow to a place at which it knows it is likely to find food. This place might be roughly halfway between the large rock and the gap, both of which are at the opposite side of the crater from its home. In order to get there, it moves forward until the features look roughly of equal size, and then proceeds forward again, keeping the same perceived proportions between the rock and gap, until they appear more or less as the same size as they do from the food source. It now knows that food should be close at hand.

The creature need not be conscious that this is what it is doing, of course. It is only important that this is a correct way of describing its method of travelling

¹⁶³ I will drop the suffix for the remainder of the chapter. It should be taken that the discussion refers to both kinds of Watcher unless specified otherwise.

¹⁶⁴ Cf. Campbell (1993), (1994a), (1994b), esp. Ch. 1.

about its environment. The reason that this form of navigation is said to involve features rather than physical objects turns upon the way in which the creature regards the rock, gap, etc. The possibility of interacting with such items need never enter the animal's mind; it need have no thoughts at all about what would happen were it to find itself at the same location as the rock, nor how the rock would appear from outwith the dormant volcano. That is, the features need not be construed as *physical* to play the role required by the animal's system of navigation here. The creature never strays from the confines of the floor of the basin; the stable features are outside its immediate habitat. All that matters is that the features are stable; they provide the creature with a spatial structure through which it can manoeuvre. A hologram, or a distinctive permanent shadow (perhaps the sun never reaches a particular crevasse), would function equally well as such a landmark. If the feature happens to be physical, this is irrelevant to the use to which the creature puts it; there need be no thought as to what kind of thing these features are. In particular, the creature does not have to view the features as physical objects with internal causal structures, i.e. things whose present states are in part determined by their previous states. Instead, all that matters is that they can provide the subject with certain consistent experiences (the rock must look the same to the rodent); they need not be anything more than collections of dispositional properties as far as this goes. The identification of features as physical has no central role to play within such a mode of place identification and navigation.

This is not to deny that objects remain of central importance to the creature's ongoing existence. Presumably, it will be able to recognize (nonconceptually) the fauna and insects that it feeds upon as objects; this would be demonstrated by the complexity of its interactions with such things. If a particular beetle scurries behind a rock, the fact that the rodent recognizes the beetle as an object is demonstrated by its attempts to pursue the beetle behind the rock and to try to dig it out from the small hole it is hiding in, as well as its ability to recognize beetles in different lighting conditions, different postures (inasmuch as beetles have posture), from different angles, by sight and by smell, and so on. The same will clearly be true of the rodent's relationship with its young and any

potential mates, where the complexity of the ways in which interaction might occur will be increased significantly.

Nevertheless, the identification and recognition of objects appears to play no role in the creature's ability to identify and travel between places—the fact that certain of the features might be physical is of no relevance to the animal. We might characterize such a creature as having two essentially different modes of thought: one in which objects are basic, employed in its interactions with young and with prey, and one in which places and features are taken as basic, as used in its method of navigation. That there are two ways of thinking should not trouble us; they are fully integrated with one another, as can be seen from the above example. The question I now want to ask is whether the Watchers' *conceptual* spatial awareness could be of just such a sort.

In particular, we might wonder whether the Watchers could employ a form of thought that would correctly be described as spatial and yet make no reference to the physical nature of certain of the items they encounter. Such a mode of thought might conceivably be regarded as more basic than object-involving spatial thought, after all. Mastering the concept of a physical object involves conceptually grasping a basic set of principles concerning how objects interact, how their present state is partly causally determined by their prior states, and such the like. That is to say, it involves the possession of a naive physical theory which explains the basic principles of object behaviour.¹⁶⁵ The feature-placing mode of thought—the mode of thought which makes no reference to the internal structures of things—involves none of this. It therefore seems plausible to suggest that the conditions for such spatial awareness might be met by beings without the resources to grasp the concept of an object. If the Watchers could employ any spatial frameworks that were focused on features rather than objects, then there would be no need to enquire as to whether they could possess the more robust, object-involving form of spatial awareness.

There are good reasons, however, for thinking that it is unlikely that any concept-using being, including a Watcher, would be able to employ only the

¹⁶⁵ Such a theory will be discussed further below.

more basic form of spatial thought which made no reference to physical objects. The first reason relates to how a subject might conceptualize its activities. Imagine the situation of a language-user living in the same inactive caldera as the aforementioned rodent. Could such a creature have some conceptual analogue of the rodent's method of navigation?

One initial problem arises from the way in which the creature might reconcile its two modes of thought. If it navigated its environment in the same way as the rodent, the easiest way to capture the particular method it employed would be to use a feature-placing language. There would be no mention of physical objects in a language of this kind; instead, lasting features could be ascribed to locations without any thought as to their intrinsic nature. The subject might think of the large, distinctive rock, for example, in terms along the lines of "black square there", accompanied by a suitable demonstrative act. Such features might only be collections of dispositional properties which cause experiences of certain sorts in the subject, as this is all that is required to play this basic role. However, the subject's interaction with the rocks, animals and plants of its environment will not be expressible in terms of such a feature-placing scheme. Such interaction would only be explicable in terms of the causal structures of both the subject and the other occupants of the habitat; a feature-placing language cannot capture what it is to climb a rock, pick and eat fruit, throw stones at a predator, and so on. Given that there is this duality in the subject's ways of thinking, the subject has to be able to accommodate both in its overall world-view. It has to be able to do so in order to understand that it itself is the thing that does both the travelling and the food-gathering, etc.; that is, that there is one subject that engages in two distinct modes of thought. Such a unifying understanding cannot be made in the feature-placing language, in that this is insufficient to capture the object-oriented behaviour. Although a subject might be able to plan action without employing any concepts of physical objects, in that it might think of a direction merely in terms of the fact that it is warmer for example, it could not represent what it does as it clambers over rocks, swims across the pool, walks around the trees, etc., in terms that made no essential reference to the physical nature of both itself and its environment. If the subject

is to be able to think about the details of its travels, it will have to do so in terms that make reference to more than non-physical features. It will, then, have to think of its world in the more robust way, in terms of the objects which inhabit, occupy and travel through it.

If the subject is to possess a coherent picture of its own place in the world, it must be able bring all of its experiences into a single narrative. It will have to have some idea of the fact that it travels in order to search for food or shelter, or to look some means of escape, or whatever. The episodes of experience involving its navigating of its environment will have to be conceptualized in the same way as those episodes involving picking flowers, jumping onto rocks and generally interacting with physical objects. This can only be achieved through the more substantial of the two modes of thought, that mode involving the recognition of the physical nature of its environment. By bringing its travels under the same mode of thought it will be able to grasp the idea that the landmarks are (or are not) actually objects, and possibly could be targets of future travel and action themselves. The subject might not actually think of them in this way, and may even believe that the actual nature of these distant features is of no importance to it (we can imagine someone thinking of the stars in just such a way), but it must have the ability to do so if the two modes of thought are to be treated as belonging to the one and the same subject.

It might seem that the Watchers have another alternative here. Precisely because they are unable to act, they do not employ two different ways of thinking. Might it be the case that they employ only the weaker, feature-placing one? This line of thought does not seem too promising, though. Consider what it is to grasp the fact that one is perceiving some state of affairs distinct from oneself. As mentioned above, this involves making sense of a whole range of factors that both explain why one is now having perceptual experience and why at any time this might cease to be the case. To be able to do this is to possess what we might call a *simple theory of perception*.

Possession of a simple theory of perception simply amounts to a grasp of certain necessary truths concerning perception in general.¹⁶⁶ These truths comprise some of the content of the concept *perception*, in that to grasp the concept is, in part at least, to grasp these truths.¹⁶⁷ The precise contents of a simple theory might be the subject of some dispute, but it will at least have to capture certain facts relating to the causal nature of perception, as discussed above. Even were a concept-using subject to lack the concept *perception*, a grasp of a simple theory would be presupposed by any employment of perceptual experience in operations concerning a spatial world in the rational sphere (for example the formation of beliefs concerning a spatial environment, or the use of perceptual experiences as reasons for spatial beliefs). Why this is so can be brought out by looking at the contents of such a theory. In order to possess a simple theory of perception, one must grasp that one's experiences are the upshot of a process that involves both subject and external environment, in which both have some input. The subject has to be able to make sense of the idea that some of the perceived features may not actually be objective (observer-independent) features of the world at all but may result from the interplay between the world and her own sense organs. She must grasp the fact that there is a gap between that which she seems to perceive and that which exists 'out there'. The term 'theory' might seem at first misleading, in that one need not have formulated explicit principles concerning the exact nature of the relationship between experience and world (there need be no mention of wavelengths, photons, retinas or optic nerves, for example);¹⁶⁸ nevertheless, the term is appropriate inasmuch as it highlights the requirement that a subject of experience need be able to grasp some general a priori principles concerning perception if she is to understand her

¹⁶⁶ As with the term 'frame of reference' (cf. §2.1 above), there are multiple ways in which we might understand the term 'simple theory of perception'. It might be argued that there could be subpersonal or nonconceptual simple theories (although, of course, the term 'theory' could be misleading in such a context). In the present context we are concerned with a simple theory that comes at the conceptual level, at the level of the subject's *understanding* of certain facts about perception.

¹⁶⁷ Cf., for example, Evans (1982), Ch. 7; Campbell (1985); Brewer (1992), §4; and P. F. Strawson (1992), Ch. 5, esp. p. 60.

¹⁶⁸ As stated, this understanding need not be explicit; it might only manifest itself in a subject's behaviour, for example. A child holding her extended index finger five centimetres away from her face knows that her finger does not split into two identical, overlapping fingers as it nears her eyes, even though she can see the finger twice. This will be clear from her response to the situation.

experience as being of something other than herself—in other words, if she is to conceive of herself as perceiving anything.

It does not seem possible, though, that a creature employing only feature-placing concepts will be able to possess such a theory. In order to do so, it would have to make sense of a range of possibilities as to the state of the item and certain crucial facts about its own causal role in the perceptual process. In the first case, it would have to understand that the target might pass out of perceptual range, that the target item might continue to exist unperceived, that something else might intervene between the target and itself, or that the properties of the target might change in such a way as to make it no longer perceivable. Yet it is not obvious how one might give content to this idea, or the idea of another feature interacting with one's senses in such a way as to cause the first feature to be no longer perceivable, and so on, without employing some concept with more substance than that of a stable feature. In particular, it is unclear that the subject would be able to conceive the possibility that a feature might undergo certain sorts of change. For example, if the large rock at the edge of the caldera was thought of only as a black square, should it change its shape or colour the subject would be unable to grasp the fact that it was still the same item, as it has no grasp on the fact that there is an underlying physical object which possesses the (non-essential) properties of *looking black* and *looking square from that angle*. Its concept of the feature would be exhausted by these perceptible properties. Likewise, the idea that a different black square might take the place of the first seems unavailable to it; if the full content of its notion of a such a feature is exhausted by the recognition of a cluster of perceptible properties, there seems no room for the idea that these properties might be instantiated by different things, i.e. that there might be different items underlying the appearances.

The complexity in the relations that must be understood as existing between the items of perception if one is to make sense of the various situations that are possible entail the employment of a more robust notion than that of a feature. This comes out particularly in the fact that the subject has to be aware of its own role in the perceptual process. Perceptual experience is a causal process involving interaction between two parties, namely the subject and the object of

perception. That this is so can be seen from the range of possible situations that the subject has to make sense of if it is to understand its experience as perceptual, as mentioned above. Given this range of possibilities, an understanding of itself as an object seems required here. The notion of a lasting feature—a collection of dispositional properties giving rise to experiences of certain kinds—is not of sufficient complexity to play a role in the causal account of perception and the related understanding of the various possibilities that might arise; in particular, a feature-placing language would have nothing to say about the precisely *causal* nature of the interaction. For example, it is not clear how a subject employing a feature-placing language might represent to itself the idea that it can no longer perceive a certain feature because the properties of the feature have changed in such a way that it is rendered no longer visible, or audible, etc.¹⁶⁹ An understanding of this sort involves ascribing a range of properties to the object of perception which *explain* the dispositions that it has to cause certain sorts of experience in subjects of a certain type.¹⁷⁰ But more than this, it involves a grasp of the fact that it is a subject of a kind that is likely to be affected in certain ways by such things. It is just such an account of the extent and complexity of possible causal interaction that the concept *object* contains.

To recognize something as an object is to grasp that (i) it can act as the common cause of a variety of different effects (including, but not limited to, perceptions), and (ii) that it is internally causally connected over time. A shadow is not an object as its present state is in no way dependent upon its earlier states (it is merely dependent upon the present locations of the light source and the object which casts it). Neither can it cause any changes within the environment. If a Watcher is to be able to grasp the fact that it is perceiving an external, spatial environment purely in feature-placing terms, then it cannot employ either of these notions. But without recourse to them the Watcher will be unable to make sense of the idea that *it* persists through the changes in its perceptual experience as a single subject undergoing different experiences, and that changes in its own properties can affect its ability to perceive. Neither will the subject be able to

¹⁶⁹ See the argument in Evans (1980), and the brief comments on this in §3.4.

¹⁷⁰ Cf. Evans (1980), pp. 101 ff.

realize that the items which it perceives can undergo change in certain of their properties (while remaining the same item), nor that such items might remain in existence while external conditions are unsuitable for perception, nor that the item might still be there while another item comes between it and the subject. Understanding any of these involves an understanding of the causal complexities within perception, and a feature-placing language would have nothing to say about this. Only a subject able to think in terms of objects will be able to grasp these possibilities.

I have suggested that a feature-placing language will be inadequate for the purposes of understanding the nature of perceptual experience. It is also worth noting that another potential alternative is also inappropriate. There is another form of thought that recognizes that physical matter exists, but does so without mention of physical *objects*. Instead, mass terms are employed to capture the facts concerning the physical environment, e.g. “there is mud here”, “there is water there”. No reference is made to any particulars. Such a mode of thought will not be vulnerable to the kinds of criticisms levelled above against accounts presented in feature-placing terms. A subject thinking in this way would be able to make sense of the idea that different lumps of stuff might change their certain of their features while still remaining the very same stuff (water might appear greener or bluer in different weather conditions for example), and of the idea that substances might be able to bring about a variety of changes in other substances (the water can erode rock over time). Nevertheless, it is not clear that this kind of thought would provide a subject employing it with sufficient resources for representing the fact about *itself*. Part of the content of a simple theory of perception is that the subject should be able to grasp that it is one of the things involved in the causal relations that give rise to experience; it is easy to see how the other part in the relation might be played by something best characterized in terms of quantities of some stuff or other, but it is far from clear how it could capture the facts about its own role in such terms. One’s grasp of oneself and one’s place in causal relations seems to turn upon one’s recognition of oneself as a lasting particular, i.e. that it is one and the same subject that has the different perceptions, not just that it is one and the same quantity of stuff.

The conclusion that we should draw from this is that if a Watcher is to regard itself as having perceptual experience it must be employing the concept of an object. That is, it must conceive of itself as an object inhabiting a *material* world. Items within the external world are composed of matter; it is not enough to conceive of a world occupied purely by holograms, for instance. If one is to possess spatial concepts one must conceive of oneself as existing within the spatial framework. This requirement could not be met in a feature-placing language. While one might be able to capture much of one's actual thought without recourse to object terms (such as count nouns), thoughts about individuals (including oneself) amount to more than predicating qualities of locations ("brown there") or employing mass terms ("mud here").

Acknowledging that a subject possesses the concept of an object is not something that should be done lightly. Mastery of such a concept is a significant achievement; as we have seen, it involves more than is required for an understanding of the concept of a lasting feature, for example. I want to look at the issue of what is involved in the possession of the concept of an object and whether such a subject with only passive experience might be able to grasp it in a moment. First, I want to look at a problem that affects one particular kind of Watcher, namely the kind which employs an absolute framework as fundamental.

§3.5.1 Self-identification in absolute frames of reference

One interesting feature of absolute frames of reference is that they do not involve a point of view (there is no perspectival element). The subject is detached from the area of space under consideration; the space is presented not only as a space in which the subject is inactive, but as a space in which the subject is not necessarily even present.¹⁷¹ The objectivity found in this variety of frame is of a particularly strong form; it cannot be achieved, for example, through any purely practical grasp of an intuitive physical theory, i.e. of the way that objects including oneself interact.¹⁷²

¹⁷¹ In the cases of all the other non-egocentric frameworks it might be argued that the presence of a point of view implicitly places the subject within the space. That is clearly not the case here.

¹⁷² Cf. Campbell (1994a) and Brewer (1994), esp. §3.

The suggestion that one need not be present in an area of space thought about in absolute terms should not be in any way controversial. It merely reflects the detached nature of such thought: the fact that no weighting is given to any one area or object at the expense of others, that there is no point of view tied to a location or object, that locations remote in both time and space can be thought of in absolute terms. One can also think about spaces for which egocentric frames are inappropriate in an absolute manner, such as thought about the subatomic and stellar realms.¹⁷³

One might even think about one's present location in absolute terms.¹⁷⁴ An architect sitting at home may look at the blueprints of his house and reflect upon its aesthetic qualities in just this detached way, or one might look at the map of one's present location as one flicks through an atlas without any thought as to how one might go anywhere else. §3.2 above constituted an attempt to describe a creature whose experience might come to it in absolute terms. This is less obviously possible than the corresponding abstract form of thought, but the idea behind this attempt was that given the central connection between the kinds of experience one is able to have (e.g. visual, auditory, passive) and the possession of spatial concepts, if a Weather Watcher was to employ an absolute frame of reference as its fundamental frame, then its experience should be structured accordingly. The intuitive thought was that if the structure of the experience mirrors the structure of one of the frameworks, then it would be more likely that the creature would be able to employ this framework.

The particular problem that arises for the Weather Watcher₁ (which employs an absolute frame as fundamental) concerns its ability to identify itself with one of the objects within the space featured in its experience or thought. What the Watcher₁ has to be able to do is pick out one of the objects present in its experience and make sense of the idea '*that's me*'. This is no easy task, given that all objects are presented as on a par with each other. John Campbell captures this idea nicely in the opening passages of *Past, Space and Self*,

¹⁷³ See also §§2.4 & 2.6 in this context.

¹⁷⁴ Cf. §2.4.

The idea of absolute space sometimes appears in discussions of self-consciousness. When self-consciousness is conceived in this way, it can seem dizzying. What it demands is that one should build up a synoptic picture of the world, one that wholly abstracts from one's own place in the throng, and then somehow identify one of the people pictured as oneself.¹⁷⁵

We can make sense of the idea that we (or the place we currently occupy) might be found in some absolute representation of space because we are already aware of ourselves as spatially located beings. I can, for example, point to my approximate location if presented with a reasonably detailed map of Glasgow. Such an ability presupposes an understanding of one's status as a physical object and a grasp of one's current location. The Watchers₁ have neither as yet. In the following section we will consider whether they could be aware of their physical nature, but for the moment we can set this issue aside. But even if we do, there is still a significant problem that the Watchers₁ face with identifying themselves as objects within an area of space presented in this absolute way.

In any thought that is not grounded by reference to some particulars—i.e. any thought that is not located by the use of a name or a demonstrative—there is always a problem about how one ascertains just which particulars (whether objects or places) are under consideration.¹⁷⁶ As P. F. Strawson notes, any attempt to refer to a particular that proceeds only by relating it to other particulars (identified only by the use of definite descriptions and general terms) without consolidating the reference by means of a recognized name or a demonstrative faces the problem that the reference is potentially indeterminate. If I talk of “the woodcutter who lives in the hut in which he was born, which stands at the edge of the forest”, I could intend to refer to any number of individuals who fit this description. The situation is not improved by adding further such details—he fishes with his hands in the stream to the west, he has never seen the other edge of the forest—as the possibility of more than one person meeting this description remains. No matter how complex this description becomes, the possibility of reduplication exists.

¹⁷⁵ Campbell (1994b), p. 6.

¹⁷⁶ Cf. P. F. Strawson (1959), pp. 11-23; Quinton (1973), pp. 20-24; Brewer (1994).

The way to solve this problem is by anchoring the description by the use of the name of an object with which one is acquainted or, even better, relating it to oneself or one's present position through the use of a demonstrative (using a name will only work if we are acquainted with the bearer of that name, i.e. if we would have been able to employ a suitable demonstrative at some point in the past). If I tell you that the hut occupied solely by the woodcutter is at *that* clearing *there*, pointing to it, then you are in a position to understand who I am talking of. The point is that any non-demonstrative reference can be uniquely determined by relating it to the demonstrative identification and hence the spatio-temporal location of some other particular. This is the only way to defuse the above potential indeterminacy.

A similar point holds equally true for any experience that does not come as from a particular point of view. If one is to identify oneself with one of the objects in one's absolute experience, one has to identify the place in the experience as *the place where I am*. These are two aspects of the same identification: if one cannot identify oneself as one of the objects, then one has no grounds for claiming that one is located in that space; conversely, if one cannot identify the place as one's present location, then one has no grounds for claiming that one is one of the objects at that place. Given this, we have to ask whether the Watcher₁ can come to the realization that the place which it perceives is the place at which it is presently located.

Without an implicit point of view, it is not clear how it might do this. Even if it had some awareness of the general appearance of its locale, that it somehow knew that it was in a cold, windy east coast town, this would not serve to distinguish it from other, qualitatively indistinguishable places.¹⁷⁷ The possibility that the Watcher₁ is having experience of a remote, similar place is always there. As with the case of reference, the way to defuse this worry would be to provide a connection to something that was identified uniquely. In the case of reference this was by identifying something demonstratively, in effect by identifying its relation to oneself. But this is precisely what the Watcher₁ cannot

¹⁷⁷ What Brewer calls 'Leibnizian places'. Brewer (1994), p. 29. It is also not clear how it might grasp any facts about its environment, but we can set this issue aside here.

do; it has no immediate hold on its own location, and is therefore unable to use this to ground any other reference or experience of objects or places.

Without a grasp of its own status as an object in the world, the Watcher₁ will be unable to meet the requirements for an understanding of its experience as perceptual experience, as outlined above. It will also be unable to reach any conclusion as to whether the places presented in experience are actual or not; without the ability to determine whether the perceived place bears any relation to its own location, it will have no grasp of the distinction between those places that form part of the real world and those which are merely fictional.¹⁷⁸ And without an understanding of this distinction, it cannot have any hold on the concept of an actually existing external reality.

§3.5.2 Subjects of experience & the material world

In §3.5 above we concluded that a subject had to possess the concept of an physical object if it was to possess a simple theory of perception. Without such a concept, it could not make sense of the idea that it played a role in the causal processes which gave rise to its perceptual experience. We therefore have to look at the issue of what it is for something to be a material object, and whether a subject with purely passive experience could ascertain whether something met such requirements. The matter of which properties a thing must possess if it is to be material will be looked at in a moment, but first it is worth considering what would constitute an understanding of such a property.

If a subject is to possess the concept of a certain property, it must be able to discriminate between instances of this property and instances of related or similar properties. If it cannot in practice always make the appropriate distinctions, it must at least be able to grasp that there is a distinction to be made, and of how one would go about making it (even if it cannot at present do so). For example, we would not expect a subject to be able consistently to make the relevant discriminations if it was in the process of learning the relevant skills, but we would expect the subject to start making the distinction in ideal cases after a reasonable period of time. If it did not, then we would say that it had not learned

¹⁷⁸ Cf. §2.3.

the concepts at all. This also holds true for concepts whose primary application comes in experience. We would expect any subject who possessed such a concept to display the ability to identify instances of the relevant property within the course of its experience. What we cannot do is make sense of the idea that a subject grasps some distinction, possesses all the necessary conceptual skills, and yet cannot consistently and successfully apply the distinction within its experience.¹⁷⁹ This would be no sort of understanding at all.

Occasionally, we can make sense of the idea that a subject has a partial grasp of a concept, this being dependent upon the fuller understanding of other members of the linguistic community. As we have already seen, a blind person's understanding of colour concepts might be explained in this way, as might a layperson's understanding of the concepts employed within a particular scientific theory. One's understanding of those properties constitutive of material objects cannot be based along these lines, though. The role of the concept of a material object is too central within our conceptual framework; too much turns upon it to allow some mere conceptual place-holder to do the same work. Without access to this concept the majority of the thoughts presently available to us would no longer be. We need the concept of a material object if we are to have some understanding of the fact that we occupy an external, objective world and causally interact with the other items found in the world (even if only to the extent that explains our perceptual experience); we therefore need to be able to recognize the essential properties of material objects.

Such a discriminatory skill cannot be explained by simply asserting that the subject can make the relevant discriminations. It is no use just claiming that a subject's possession of the concept of (e.g.) light and its corresponding sensitivity to this simply consist in the fact that it is sensitive in just this way. This fails to explain what the subject's ability consists in; what we require is some account of what allows the subject to make the relevant discriminations, for example what it is about the kinds of experience available to the subject, or about the subject's abilities, that grounds this sensitivity.

¹⁷⁹ Unless it had been able to do so at some earlier stage.

It might not be immediately clear that such an account is required. We can make sense of the case of the ‘chicken sexer’ who is sensitive to the gender of chicks before their sex organs are visible, but who can give no account as to how he is sensitive. Presumably this ability will be explained by some physical fact about the person, but it need not be explained by something that the he is aware of. An account in subpersonal terms would be wholly adequate; as far as the subject is concerned, he need not be able to offer any account of the basis of his skill. It might seem as if the Watcher’s sensitivity to the constitutive properties of objects could be of the same kind, and that its ability to pick up on these features might be fully explained in terms of subpersonal capacities, rather than anything of which the Watcher is aware. To take this line would be to say that the Watcher’s ability to make the appropriate distinctions could be all that its grasp of the concept consisted in.

This cannot be correct, though. The key point to note about the chicken sexer case is that he will already be experientially acquainted with the difference between cocks and hens; he already knows what this difference consists in, and can give some account of it. Also, he will be able to determine whether his judgements were correct at a later time. Were this not so, he would be in the position of trying to discriminate between properties of which he could give no account, in terms of an ability he could not explain. Were this so, the only account that the chicken sexer could give of the properties to which he was sensitive would be that they were the properties that he was sensitive to, which is clearly no account at all. The same point holds true of the Watcher. Its grasp of the concept of a property of a physical object must amount to more than just the ability to make suitable discriminations; we need some account of what allows it to make these in terms of something which it could be aware of, such as features of its experience.

In a similar context to our own, Peacocke outlines a principle that characterizes the general relationship between thought and reality which is of particular relevance here:

If an account of what is necessarily involved in something’s having a certain property makes reference to some substantial condition which

must be met by things which have it, a thinker's mental representations of that property must be suitably sensitive to the existence of this substantial condition.¹⁸⁰

It is this sensitivity that distinguishes a grasp of the relevant property from a grasp of any other remotely similar property. If a subject cannot recognize an essential property of material objects, then it cannot have the concept of a material object.

What properties, then, characterize material objects? Which condition must subjects be sensitive to if they are to possess this concept? We can divide the distinguishing aspects of material objects into two categories: there are those which distinguish them from *non-material* particulars, such as rainbows and shadows, and there are those which distinguish them from material *stuffs*, such as blood and chocolate. In the following argument I will claim that the Watchers will be unable to comprehend the particular *physical* nature of material objects. That is, the problem will turn upon the first kind of characteristic, rather than that which distinguishes material objects (i.e. particulars) from material substances (i.e. quantities of stuff).¹⁸¹ Although this latter distinction is an important one, we can set it aside in the following, as the argument does not depend upon it. We can allow that the Watcher might be able to recognize particulars—it might be able to grasp, for example, that it is a subject of experience, i.e. that there is a single subject to whom all the experiences belong.¹⁸² The question is whether it can recognize *material* particulars.

What we have to do is clarify what properties distinguish physical objects from the kind of items that are correctly captured by the sort of feature-placing language discussed above, namely space-occupying particulars such as rainbows, holograms, shadows, etc. As mentioned above, the causal efficacy of material objects is of particular relevance here; it is the fact that such objects are internally causally connected, and that they can bring about a variety of changes in other objects, features, etc. One way to capture this notion is by saying that one's possession of the concept *object* is constituted by one's grasp of certain

¹⁸⁰ Peacocke (1993), p. 171.

¹⁸¹ Cf. e.g. Quinton (1964) and (1973), esp. Part I.

principles involved in action—the possession of an *intuitive* (or *naive*) *physics* (or *physical theory*).¹⁸³ Roughly, this amounts to a grasp of certain fundamental principles concerning the ways that objects interact with other objects and oneself.

The kind of thought involved in such a naive physics is usefully contrasted with the simpler level of thought about lasting features discussed above.¹⁸⁴ It is possible to view items (Campbell's example is of the stars) in such a way that we are not thinking of them in terms that involve such a naive physics. We can look at the stars without having any opinion whatsoever as to what would happen if one star came into contact and interacted with another, or if a star should come into contact with us, or whatever, just as the rodent in the earlier example had no thoughts about (nor inclinations to act upon) the landmarks used for navigation. There would no thought of action concerning an object viewed in such a primitive manner, nor even of its possibility; simply put, it would not appear to be the *right kind of thing* to serve as the intended object of action. That is, it would make no sense to the individual in question to suggest that he might interact with the object in question.¹⁸⁵

Among the beliefs implicit in an intuitive physics must be ones about what happens when two objects interact, what happens when certain kinds of objects come into contact with us, and what happens when we initiate contact, or

¹⁸² Where 'experience' is read as neutral between perception and sensation at this point.

¹⁸³ See, for example, the papers by Campbell, Cooper and Munger, Peacocke, and Spekle and Van de Walle in Eilan, McCarthy and Brewer (1993), Naomi Eilan's introduction to the Intuitive Physics section in the same, and Campbell (1994b), §2.2. Evans, in (1980) Part Three, does not use the term but the central idea is there.

¹⁸⁴ See §3.5.

¹⁸⁵ The suggestion that we can at times think of objects in this basic way might initially seem to clash with Evans' claim that "apparent location in behavioural space is an essential feature of any visual experience which permits of the application of two-dimensional spatial concepts" (Evans (1985b), p. 394), in that if we can view objects (such as stars) in a way that does not involve truly regarding them *as* objects, it might seem that we are not regarding them as being located in a precisely *behavioural* space. To take this position would be a mistake, though. Even when items are viewed in this primitive way they obviously do have a place in what Evans calls behavioural space—we know what it would be to move in the general direction of the stars or to point to them, and would do so even if we were regarding them in the more primitive manner. Given that Evans is willing to grant such things as after-images an apparent place in behavioural space, there should be no problems with regard to stars, aeroplanes, clouds or whatever (when viewed in this simple way). (Evans' claim is made on behalf of the supporter ('V') of the position with respect to Molyneux's question to which Evans is sympathetic.)

act upon, certain kinds of object (if we are able to do so).¹⁸⁶ The outcome of interaction between two physical objects should be explicable in terms of the initial states of the same objects, the position, size and mass of each object, the force involved in the interaction, and so on. Such beliefs are not only *about* objects; at least in part, they give content to the notion of what it is *to be* an object. Objects are just those features of the world that behave in the ways outlined in one's theory.

Are there any properties that appear to be central to such an intuitive physical theory? What we have to establish is just which properties allow for the kinds of causal interaction in which we are interested. For example, there is a difference between what happens when a ball hits a wall and when a shadow is cast upon it. The correct explanation of the latter would tell us about the light source throwing the shadow, the texture and inclination of the surface upon which the shadow is cast, and the position and physical properties of the object casting the shadow; it will not, that is, proceed by employing rules concerning what happens when shadows come together or when shadows come into contact with material objects. The account offered of the former event would contrast with this. The explanation for this event would make essential reference to what happens when things of these general kinds come into contact: energy will be transferred from the ball to the surface; the elasticity of the ball will cause it to rebound from the larger, more massive structure; the two objects will not end up occupying the same place, and so on. There seem to be two main possibilities for the property which would be focused upon in such explanations. Firstly, there is *impenetrability*; secondly, there is the ability to exert *force* or to have force exerted upon oneself.¹⁸⁷ These are just the properties that seem to set physical objects apart from other space-occupying features such as holograms and pools of light. Such things might have shape, size and location, but they are not impenetrable, and cannot play a role in interactions involving force.

¹⁸⁶ The ability to act is not presupposed by the possession of such a naive theory, it should be added.

¹⁸⁷ For an example of an account that stresses the former see Locke (1706), esp. Bk. II, Ch. 4, and Quinton (1964), and for one that emphasizes the latter see Peacocke (1993).

Impenetrability in this sense is of course not the same as hardness. Instead, it points to the condition that two objects cannot occupy the same place. This does not seem to be an empirical fact about objects; it appears instead to be a condition of objecthood.¹⁸⁸ Were we to see the ball pass through the wall, or remain at a point apparently occupied by the wall, we would not concede that this provided us with a falsifying instance of a widely accepted fact. We would rather declare that either the wall or the ball was not in fact a physical object—one might be a convincing hologram, for example. Central to the idea of a material object is that it *fills space*, as Locke puts it, to the exclusion of other objects.¹⁸⁹ The ball could imbed itself in the wall, of course, but this would not be a case of two objects being located at the same place. Rather, the ball would occupy the place previously occupied by a bit of the wall—it would have displaced that part of the wall. The same point holds true in cases where the objects are not quite as robust, as it were. A cloud of hydrogen cannot be located at exactly the same place as a cloud of xenon; we might characterize what we end up with as a mixture, or a disparate collection of pockets of hydrogen and xenon, but both clouds cannot have precisely the same location. Just as the ball might displace part of the wall, so a quantity of xenon injected into a cloud of hydrogen will displace parts of the latter.

Likewise, we need the concept of force to explain such interactions. This is implicit in Locke's account of the role of impenetrability (or *solidity* as he calls it), when he notes that it is the resistance of force that distinguishes impenetrability from *pure* (or empty) *space* on the one hand, and the secondary quality of *hardness* on the other.¹⁹⁰ To occupy space is to be a physical object, which is to be impenetrable; to be impenetrable is to resist the impingement of other bodies upon the space one occupies. Locke recognizes that the resistance to force is a logical requirement of objecthood; we can see this in his assertion that

This resistance, whereby it [the object] keeps other bodies out of the space which it possesses, is so great that no force, how great soever, can surmount it. All the bodies in the world, pressing a drop of water on all sides, will never be able to overcome the resistance which it will make, as

¹⁸⁸ Cf. Quinton (1964), pp. 342-3.

¹⁸⁹ Locke (1706), Bk. II, Ch. 4, §2.

¹⁹⁰ *ibid.*, Bk. II, Ch. 4, §3. See also Quinton (1964), p. 342.

soft as it is, to their approaching one another, till it be removed out of their way.¹⁹¹

We can conceive of a hard object displacing a softer one, even causing it to become misshapen, but we cannot conceive of it forcing itself into exactly the same place as the softer object.

Peacocke stresses force at the expense of impenetrability in his account.¹⁹² The connection between the grasp of an intuitive physical theory and the possession of the concept of a material object is drawn in the following way:

What is it for an object to be a material object, for it to be of a material composition? I suggest that for something to be a quantity of matter is for changes in its state of motion to be explicable by the mechanical forces acting on it, and for its changes of motion to exert such forces. ... [W]hat makes something a material object is its relations to a certain kind of physical magnitude in the world, that of mechanical force.¹⁹³

The idea, then, is that for something to count as a material object is for its behaviour to be explicable in terms of the application of magnitudes of force. He also notes that there will be an interdependency existing between the concept of a material object and that of physical force. This seems quite correct, and unproblematic, and reflects the important fact that the terms existing within a set of interconnected principles (a theory) will be given their content by their relations to the other terms employed within the theory.¹⁹⁴ This line of thought might be characterized by saying that for something to count as a physical object is a matter of its behaving in accord with certain general, causal rules or principles; these principles are captured by one's intuitive physical theory, which is best expressed in terms of the forces that material objects both exert and have exerted upon them.

One thing that we should note about Peacocke's proposal is that it offers us a mechanical (or dynamic) theory; the central role in his account is played by force. This contrasts with a suggestion from the psychologists Lynn Cooper and

¹⁹¹ Locke (1706), Bk. II, Ch. 4, §3. Impenetrability is to be preferred to Locke's solidity, as it does not display the same ambiguity between the logical property of objects we are interested in and the property correctly distinguished from liquidity and gaseousness.

¹⁹² Peacocke (1993).

¹⁹³ *ibid.*, p. 170.

¹⁹⁴ Just as the overall system of mathematics gives content to the idea of specific numbers.

Margaret Munger.¹⁹⁵ Their alternative approach employs principles based upon motion—they are rules concerning the behaviour of objects characterized in terms of their motion (connected surfaces will move together, objects have only one route through space and time, etc.), with no reference to force. For this reason, Naomi Eilan describes them as constituting an *intuitive kinematics*, as opposed to an intuitive mechanics (or dynamics).¹⁹⁶

Cooper and Munger are not offering a constitutive theory. Their account attempts to capture certain psychologically real aspects of spatial representation, which is not our present concern. Nevertheless, we can imagine a suggestion that we treat the approach as also offering a constitutive proposal. The basic thought would be that material objects are just those things which move in certain ways; surfaces which always move together are facets of the same object. Location, velocity and change in velocity would replace mass and force as central within such an account. We can imagine how such a theory might be usefully employed by our rodent above in navigating its environment. It may even be more successful in catching prey if it bases its pursuit on projected trajectories for the prey rather than estimates of the mass, etc., of the target. Nevertheless, such a proposal would not seem particularly promising as a constitutive account; it seems unlikely that any set of principles framed purely in terms of motion could provide us with the core of our concept of an object. Specifically, there would be nothing that would allow us to distinguish objects from lasting, moving features on this approach. As long as the various sides of a holographic object moved together it would be indistinguishable from a material object if one only attended to movement. That is, there would be no gap between that which appeared to be a material object and that which actually was an object. This distinction would disappear if we tried to characterize objects merely in terms of their motion. The suggestion *may* pick up on certain facts about the way we distinguish objects in perception, but this is an empirical matter, and not the conceptual one in which we are primarily interested.

¹⁹⁵ Cooper and Munger (1993).

¹⁹⁶ Eilan's introduction to the section 'Intuitive Physics' in Eilan, McCarthy and Brewer (1993), pp. 102-3.

Irrespective of whether we emphasize the role of force or impenetrability, the question that we have to address is whether a purely passive subject could grasp either concept. In order to do so, the passive subject would have to display a sensitivity to just those properties; that is, it would have to be able to discriminate between such properties and any number of other non-equivalent properties. In particular, we would expect the subject to be sensitive to the difference between material objects and holograms, for example.¹⁹⁷ Were it not able to do so, then it would not possess the relevant concepts. This is a constitutive issue about concept possession.

There is a related question as to how a subject might develop or come to possess certain experiential concepts. If a subject is to possess the concepts we are interested in, its experience and abilities must be of such a sort to allow it to develop the concept. In order to grasp the concept *smooth*, one must have the necessary tactile sensitivity to just this property, for example. One's nonconceptual experience must be fine-grained enough to allow one to discriminate between those surfaces which are smooth and those which are rough.¹⁹⁸

These are separate issues. Nevertheless, the close connection between them comes out in the thought that a similar discriminatory ability must be in place in both instances. If a subject \underline{s} is said to possess the concepts \underline{c} corresponding to certain properties but cannot now successfully discriminate between these and other properties, then there must have been a time \underline{t} in the past when \underline{s} could so discriminate. If this is not the case, then we are left with no account of what contributed to \underline{s} 's possession of \underline{c} whatsoever. We are entitled to expect some account of how \underline{s} came to grasp \underline{c} , and such a story will invariably involve \underline{s} 's sensitivity to the relevant properties.¹⁹⁹ Both of these issues will be touched upon in the following.

¹⁹⁷ Cf. Peacocke (1993), pp. 169-70.

¹⁹⁸ See, for example, Peacocke's characterization of what it is to possess the concept *red* in this context. Peacocke (1992), pp. 7-8.

¹⁹⁹ It is important to see that this holds irrespective of whether the discriminatory abilities presuppose prior conceptual skills or not. In many cases, learning new concepts will require a substantial conceptual repertoire to be in place already, but that is not always the case. In some instances, particularly those involving concepts of a more rudimentary nature, all we look for is

The problem with impenetrability for the passive subject is that in order to understand this notion one must recognize that the fact that two material objects cannot occupy the same space is a constitutive feature of material objects and not just an empirical fact about their behaviour. We can imagine a holographic representation of an area of space in which the holographic items behave as physical objects do: they do not pass through one another, but ‘rebound’ off each other in the way actual material objects might. There is nothing about the representations of the objects that entails that they do not drift in and out of each other; this merely reflects the program that they are obeying.²⁰⁰ The holographic items literally have no substance to them—they are not impenetrable. The Watchers have to grasp that the material world differs from such a detailed hologram. They must be able to represent to themselves the fact that material objects are actually, necessarily impenetrable.

If one reflects upon the intuitive kinematic theory mentioned above, it will be a feature of this account that certain surfaces move together. Such a theory might be very successful in predicting the movements of various objects; nevertheless, it will not provide us with a constitutive account of objects, as noted above. If our Weather Watcher is to capture the impenetrability of objects it has to be able to employ a *mechanical* or *dynamic* theory rather than one based merely around kinematic principles. The kinematic theory might be sufficient to describe its experience of the movement of objects, but it is not enough to give content to the concept of an object. What is required for the Watchers to possess this concept is a sensitivity to a property that would distinguish the employment of one sort of theory from the other. If it is not sensitive in just this way then it simply does not possess the concept of an object. That is, there has to be something that determines that it is a mechanical rather than kinematic theory that the Watchers are employing.

the presence of certain discriminatory abilities (whether these involve the possession of sense modalities which could pick up on certain properties or other kinds of abilities) which could be possessed by creatures with no substantial conceptual skills.

²⁰⁰ Computer simulations of the real world are relevantly similar to this, even if they only exist in two-dimensional space.

What, then, will allow a Weather Watcher to distinguish a purely holographic domain from a material one? How might it discriminate between physical objects and non-material things which happen to behave like objects in certain respects? This is, after all, a distinction that the Watcher has to be able to make sense of.²⁰¹ Their visual experience of the movements of the perceived items will not be enough; this would be perfectly in keeping with a purely kinematic understanding of the items which makes no reference to impenetrability or force. Matters would be worsened if some of the holograms were intended to represent spatially-located but non-material phenomena such as rainbows or pools of light. A Watcher would then perceive some items passing through other ones; it might not even appear to be an empirical fact that items do not pass through each other or occupy the same location. Why should it not then treat all the items as of the one, holographic kind, and then believe that it is a purely contingent fact that some behave differently from others? This, after all, would also be the more parsimonious explanation.

We might try and determine which theory the Watchers are employing by looking for some understanding of *force*. One way a grasp of this might be manifested which is unavailable to the Watchers is through the practical employment of an intuitive mechanics—through an ability to exert force upon other objects in the pursuit of one’s desired goals. Successful physical interaction with other objects will display an implicit grasp of the relevant principles involving force, e.g. roughly how much force is required to open that door, to pick up an egg without crushing it, and so on. When one brings force to bear in this kind of way, one is not just trying blindly, with no preconception of the necessary force. The application of force by a skilled agent is a matter of great subtlety, with the kind of ongoing complex modifications in the action discussed in Chapter One. An agent’s sensitivity to force is displayed in the success of that agent’s actions. This kind of sensitivity could be displayed by both concept using subject and non-concept using subject, although only the former will be able to engage in reasoning based upon its practical abilities, e.g. in planning future action.

²⁰¹ Cf. Peacocke (1993), pp. 169-70.

A Weather Watcher clearly cannot display the required sensitivity in this way. It must instead be present in some other way, if we are to be able to ascribe the concept of force to the being. One way, as Peacocke notes, would be through an understanding of sensations of pressure, for example those caused by material objects exerting force upon its outside. It does seem that the sense of touch is the most appropriate for detecting force, although it may not be the only way. Touch allows us to distinguish actual instances of force from the mere appearance of it; it is the tactual / kinaesthetic experience of inertial pressures (of being forced into one's seat, for example) that determines which of two objects is actually accelerating away from the other.²⁰² Our ability to understand certain visual experiences as of instances of force acting on objects is in many cases dependent upon our tactual experience of force in similar situations. One's ability to recognize just how painful a particular fall was might well come through one's personal experience of the odd tumble and the force with which one hits the ground. If the passive subject can grasp that certain of its sensations are just those caused by external forces pressing against it, then it certainly will have the relevant concepts. An understanding of force will allow it an understanding of impenetrability, as the above quotation from Locke would suggest.

In order to have such an understanding, a Weather Watcher will have to be able to distinguish the tactual experience of pressure from sensations of hardness, pain, and so on. It will have to be able to both grasp that there is a fundamental difference underlying the different sensations, and be able successfully and consistently to distinguish between these sensations. The first is necessary in that without such an understanding the creature will only be differentiating between various sensations construed (at most) as such, just as we can recognize different types of itch, headache, and so on. The second is necessary if it is to truly possess the concept, in that the possession of an experiential concept is precisely the possession of an ability to make relevant discriminations, to understand that there is a distinction to be made and be sensitive to it in one's experience.

²⁰² Cf. Sklar (1974), Ch. 3, §F; Ray (1991), pp. 113-5.

As discussed earlier, we would expect such a discriminatory ability to be explained in part by the kinds of experience available to the subject. We have to construe the experience as lacking the concepts we are interested in; to assert that the subject does have the relevant ability because its experience comes to it as conceptualized in part by the use of this very concept is entirely unilluminating. Given this, we can ask if there is anything in the structure of its experience construed nonconceptually which would allow it to successfully employ such a concept.

One thing we might initially note is that the bodily location of the sensation will be of no use in determining its cause. The results of force can be felt both internally and on the surface of the body. One's stomach can lurch at a sudden change in momentum, as when a car speeds over a large bump in the road, and one can feel extreme acceleration as a physical pressure on the surface of the chest. Neither is it obvious that there is any qualitative difference between sensations of force and certain other sensations. Certain kinds of back pain can feel very like a hand pushing against the small of one's back, for example. And there is no particular qualitative uniformity over all instances of sensations of force. Having something brush lightly against one's face, and giving someone a gentle massage feel completely different to the sensations caused by being subjected to significant forces, such as a sudden forceful push or a rocket launch. That we are generally able to pick out instances of force from those of lingering pain, surface tickles, etc., should not blind us to the fact that the application of force can manifest itself in experience in any number of disparate ways. The ability to distinguish cases in which force is exerted upon one from those in which one just experiences similar sensations is no minor, negligible skill. This is reflected in the fact that one can be subjected to force both in the presence and absence of any external objects or any visible change. One might feel pressure on one's shoulder and look to see a hand pressing down upon it. Sensations caused by acceleration need not occur due to direct physical contact with another object. And one might experience force caused by the wind blowing against one, with no accompanying change in one's visual experience.

The concept of force is not a secondary concept. It is not a concept which only serves to pick out a disposition to affect subjects with certain kinds of experience. We can usefully contrast our grasp of what happens when we experience force acting upon us with how we treat the sensations that accompany one's passage through a patch of sunlight. In the case of the latter, one will experience certain sensations on the skin—warmth—while being aware that these are only representative of the dispositional property to cause sensations of warmth in certain subjects (i.e. ones with certain body and surface temperatures) of the spatially-located feature through which one has passed. While we might think of the location as a 'hot spot', the content of this term is exhausted by the fact that it causes sensations of warmth in us. We understand that other pools of light, non-conscious objects, features and the like will not experience warmth as they come into contact with each other. We learn nothing about the primary properties of the object which explain this dispositional property merely through having the sensations. Contrary to this, we do believe that other objects can be subject to mechanical force. To see a car accelerating is to grasp that the car is being acted upon by various forces, that it is undergoing inertial change. All physical objects are subject to mechanical force; this distinguishes them from holograms, shadows and the like. There is, therefore, a disparity between the ways in which we view sensations of pressure or force and sensations of heat, pain, etc. The Watchers' understanding needs to reflect this.

Of course, we can imagine the Watchers claiming that they perceive a difference between the experience of force and a sensation of heat. We could even imagine them claiming that impenetrability, etc., are primary qualities and warmth, etc., are secondary ones. But to assert that the Watchers *can* make the relevant discriminations without some account of what allows them to do so lacks any explanatory value. It makes their understanding of these properties mysterious. When enquiring as to the necessary conditions for the possession of some concept of other it is no good simply to assert that certain creatures can possess the concepts; we want some account of what this possession consists in, and of what it is about their constitution (especially with regard to their sense organs and possibilities for action) that allows them to possess the concepts and

why it does.²⁰³ This account should be in terms that do not turn upon the ascription of thoughts containing those concepts to the creatures; were it to do so it would clearly be circular. Without some story along these lines we are just left with an unsupported assertion that the creatures possess the concepts, and one that carries little weight.

Any account of the Watchers' understanding of force that turns only upon the interpretation of sensations is going to be inadequate. This is because they will have to grasp that the concept does not pick out merely a property to cause sensations of a certain kind; it picks out a fundamental property that can equally affect objects without the ability to have such sensations (or sensations of any kind). But to base a concept of a property upon the selection of certain sensations as resulting from this property is just to pick out a dispositional property; it does not go beyond this to pick out what explains this, a primary property capable of affecting all physical objects irrespective of their capacities to have sensation. To classify certain sensations as instantiating *redness* is just to say that they are of a certain secondary property—it is not to make any claim about what features of the object underlie this dispositional property. The experiences themselves tell us nothing about this. Peacocke makes the point thus:

If such a sensitivity to sensations were all that is involved in having a conception of force, conceiving of forces no one experiences would be none too easy a thing to do: you would have to conceive of something felt by no one on the basis of sensations you *do* feel. It is no solution for this theorist simply to supplement his account with a reference to whatever is the primary quality ground of these sensations. It is force itself which is their primary quality ground, and one of our original problems was precisely what is involved in thinking of that magnitude in the way we do.²⁰⁴

One cannot understand force merely by looking to one's sensations. The most that one can do by this route is to latch upon certain secondary properties. And, as Peacocke stresses, to do this is to make unintelligible the idea that other objects might be subject to force. It would also leave us in the dark as to what makes a experience one of force rather than, say, a sensation of pain, with which it might be qualitatively indistinguishable. We would not be able to give an

²⁰³ Cf. the comments concerning the 'chicken sexer' case above.

²⁰⁴ Peacocke (1993), p. 173.

account of this distinction in terms of the fact that one experience is explicable in terms of the occurrence of a specific primary quality. It leaves us with no account as to how one achieves the former, more substantial notion as opposed to merely the latter.

Without a possession of the concept of force one will be unable to possess the concept of an object, and this in turn will prevent one from conceiving of oneself as located in space. If one can only conceive of the world as occupied by features whose entire nature is given by their dispositions to affect one's experiences in certain ways, then one cannot achieve the robust form of spatial awareness in which we are interested. It is worth noting that adding an ability to understand geometry to such a subject's conceptual repertoire would achieve nothing; the theorems of the geometrical system could not be assigned the substantial interpretations required if it is to have physical significance—that is, if it is to be understood as of an external, spatial reality. If the subject cannot conceive of its experience as in part caused by properties that go beyond the dispositional and provide the core of the concept of an object, then it can have no conception of an external world in which it exists as one item amongst many. In a different context from his discussion of the feature-based form of spatial awareness, Campbell expresses a similar line of thought:

in order to have the conception of an objective spatial world one must have the idea of a (spatial) *object*, and must think of the systematicity in one's experiences as *explained by* the fact that the objects in the objective temporal order obey a primitive mechanics. *Given* this notion of 'object', one may introduce the ideas of properties of objects which consist entirely of propensities to affect the course of experience. What we cannot do is operate with the idea of an objective spatiotemporal order whose inhabitants consist entirely of propensities to affect the course of one's experiences; that would not be the idea of a public world at all.²⁰⁵

The problem is that this appears to be the only idea available to the Watchers given their passive experience.

I commented above that there were two questions that could be raised when considering whether a subject of a certain kind might possess a certain concept. The first concerned how the subject might display a sensitivity to the

²⁰⁵ Campbell (1985), p. 163.

appropriate properties; the second concerned how it might acquire or develop the concept. The above discussion, while primarily concerned with the first is also relevant to the second, in there appears no way in which it might gain the concepts given the limited experiential resources available to it.

This fact suggests a crucial difference between the Watchers' situation and our own case. We find ourselves from the outset able to control our behaviour, initiate contact with other objects, and control our movement through our environment (all to a greater or lesser extent). One's ability to exert some control upon the course of one's experience does not just start with the development of one's conceptual abilities, it precedes it. Animals and young children are able to engage in some form of activity, some resemblance of B1- or B2-type human action. In other words, they are able to have active experience of a fairly robust variety. The ability to successfully interact with their environment—to find food, to pick up one's young, to hold on to a parent, to grasp a toy—will demonstrate that the animal or child possesses some nonconceptual grasp of an intuitive physical theory. This will entail the child or animal displaying some practical sensitivity to just those properties that are required for the possession of the concept of an object *prior* to its development of these concepts. For example, the ability to pick up and carry something, whether it be a toy or an item of food, will display a grasp of the level of force required to keep a hold of the object without either dropping it or crushing it. This sensitivity to degrees of force is particularly apparent when we look at an animal's ability to pick up and handle its young. There is little room for error in such cases, and the fact that the parent will modify the amount of pressure it is applying in response to the infant's responses demonstrates the degree to which it is attuned to the force it is applying.

It will be just this nonconceptual sensitivity to precisely *physical* properties which underlies and partially explains the later possession of a fully conceptualized grasp of a theory of the required sort, and the corresponding grasp of the concepts of *force* and *impenetrability*. It will not provide a full explanation: we have to supplement it with the demand that the subject have suitable neurological facilities for the processing of language, and that it is

suitably exposed to the use of a language, and so on. Not all animals (not even all human animals) capable of interacting with their physical environments will develop conceptual skills, after all. How these extra requirements are fleshed out is a question in part for developmental psychology and cognitive science (as is an account of the ways in which the ability to control one's limbs, sense organs, etc. might develop), but we can still imagine the rough shape that they might take. Setting the issue of these other requirements aside, we can see that an explanation of conceptual development which runs in terms of the nonconceptual, practical abilities possessed by the subjects in question will fit with the intuition that the concepts that one has access to will in part be explained by the form of life that one engages in, and the kind of animal one is. Such an account might be reasonably characterized as *naturalistic*, as contrasted with the Cartesian picture of the Weather Watchers presented by Galen Strawson.

A detailed picture of just how a conceptual grasp of force, etc., might proceed from prior, nonconceptual abilities is outwith the scope of this dissertation. Hopefully, however, the above comments should suggest some relevant lines of inquiry. In particular, some account of animals and preconceptual infants as being able to exercise some form of control over their behaviour (and thus being able to have active experience) is required. If we choose to see animals and the young as mere mechanisms, and present their behaviour in purely causal, behaviourist terms, the present suggestion will fail.²⁰⁶ One would then have no account of how one's present abilities as a rational, conceptual being connect with the earlier stages of one's life; in particular, one will have no account of how such conceptual abilities develop.

There is also the issue of just what sorts of control the subjects have to be able to engage in. Clearly, mental, experiential control will not be adequate. This merely amounts to the ability to attend to different aspects of one's experience—to focus upon one's visual experience at the expense of one's tactual experience, to focus on the edges of the visual field rather than the centre (as an optician might request one to do when testing for 20–20 vision for

²⁰⁶ Unless, of course, one sees the activity of concept-users in the same light.

example), and so on. In such control one is not truly initiating or bringing about the experience in any substantial sense; one is rather altering after the fact, so to speak. The more interesting question is which sense modalities must one be able to exercise control over? It seems open to debate whether the ability to actively look would be sufficient to allow one to make the discriminations required for a grasp of an intuitive mechanical theory.

The obvious, if not uncontroversial, suggestion is that some form of control over one's tactile experience is required in order for one to become sensitive to physical force, impenetrability and the like. Active touch is, after all, the exertion of force on objects with physical mass. It appears likely that one would have to be able to control the amount of force exerted, though, otherwise one would be unable to display the range of successful interactions we would expect from a subject capable of some form of action, as described in Chapter One, and as displayed by animals handling their young, for example. Leslie Stevenson seems to have something along these lines in mind when he writes that

Our concept of a material object involves, at least as the central cases, the integration of sight and *touch*; ... tangibility—or some means by which objects can be deliberately manipulated by us—will be in the indispensable core of the concept, even though once we have acquired that core, we may be willing to extend the title to clouds, stars, and atoms.²⁰⁷

Other relevant issues which require detailed study include the precise form of the intuitive mechanical theory, e.g. whether it should be characterized in terms of unit-free magnitudes, how general in application it will be, the extent to which it has to be treated as psychologically real, and so on.²⁰⁸ The fact that such clarifications are required should not detract from the key point, that we can identify just the sorts of sensitivity required for the possession for the concept of a physical object in the behaviour of animals and children lacking in conceptual capacities.

²⁰⁷ Stevenson (1982), p. 59.

²⁰⁸ Cf. Eilan's introduction to the section 'Intuitive Physics' in Eilan, McCarthy and Brewer (1993).

§3.6 *Physical significance and veracity*

The second reason that I want to discuss concerns the fact that the subject has to be able to recognize the objectivity involved in spatial awareness. If one is to understand that one's perceptual experience reveals to one what is happening in an external, spatial world in which one is located as one object amongst many, one has to be able to grasp that the content of one's experience is to a large extent determined by what is the case in that world. There are significant constraints upon what one can experience, as discussed in Chapter One, but few are as crucial as the fact that spatial experience comes to one as of a world that already exists independent of one's desires and beliefs. One has to view oneself as subject to the same physical laws as all other objects in the world; that is, one cannot dictate the laws that govern the behaviour of all objects, nor can one choose to exempt oneself from them.²⁰⁹ In this section I want to address the issue of whether a Watcher could grasp this objectivity, and ascribe it to the contents of its experience. What is it to ascribe such significance to one's perceptions?

We can approach this issue via the matter of what constitutes the ability to read a map. The particular ability I want to focus on here pertains to the fact that one has to be able to recognize which features of the map are actually intended to be visually similar to the part of the world represented, and which are merely conventional in nature. A hillside is not covered with large lines, for instance. A similar understanding would also be manifested by the ability to pick out the actual objects and physical features represented in an aerial photograph as opposed to the shadows cast by clouds, any blotches caused by marks on the camera lens, and so on (or, at least, the ability to understand that there is such a distinction to apply). To be able to do this would be in part to recognize that certain of the things presented in the photograph are lasting features of the environment in their own right; that is, their existence is not purely dependent upon some feature of the camera's mechanism (such as with a 'red eye' effect in photographs), or even some feature of

²⁰⁹ It is worth noting that the following argument does not turn upon the rejection of Campbell's feature-based account of spatial experience in §3.5. It would still apply even if one insisted that a subject need not treat objects as its fundamental category, and would also apply to a reading of experience that focuses upon continuing physical processes rather than objects, as discussed in Evans (1980), pp. 83-7. Given the implausibility of such interpretations (as noted in the previous section) I will, however, focus upon the object-based interpretation of spatial experience.

the locale (as a shadow's existence would be). Whether our Weather Watcher₁ would have to be able to read a conventional map or understand an aerial pictorial representation would obviously depend upon the nature of our Forecaster, but the key point is that it would have to be able to do one or the other.

The abilities here involve two central features, both of which must be grasped by any subject (including a Weather Watcher) if he is to make sense of the idea of an area of physical space existing open for his perceptual inspection. The first is that he should possess a simple theory of perception; the second, closely connected to this, is a grasp of the veridical–non-veridical distinction.

The connection between the simple theory of perception, the veridical–non-veridical distinction and the demand for objectivity comes out in the following straightforward line of thought. As part of the grasp of a simple theory of perception the subject has to be able to make sense of the idea that some of the perceived items (double images, the halo of light surrounding the street-lamp, etc.) are not actually aspects of the world at all but result purely from the interplay between the world and its own sense organs. It must grasp the fact that there is a gap between that which it seems to perceive and that which exists. The subject has to understand that in veridical perception it is presented with an area of space occupied by mind-independent items—features and objects whose existence does not depend upon the fact that they are being perceived. It is this ability to recognize the objectivity implicit in perception that is of central importance here.

In the case of the Weather Watcher₁, it has to be able to understand that, should it experience different places (as might be presented to it by the Forecaster for whatever reason), the differing locations are either part of the one larger space—they are both physically and causally connected—or they are mere illusions of place. Perceived locations might not truly be places of any sort. We can, after all, grasp the fact that we can have the illusion of spatial perception in dreams, hallucinations, etc. Not only has the subject to be able to grasp that certain aspects of its experiences may misrepresent the world, it also has to understand that whole tracts of experience (or representations) which appear to be of actual areas of space may not, in fact, be veridical.

For the Weather Watcher₂ the situation is closer to our own. As the clouds form and roll over the mountain that was at the centre of the creature's environment, the Watcher₂ has to be able to make sense of the idea that the patches of light and shade that form, change and move on the side of the mountain are not objects that are created and pass away on the landscape as the weather changes (as some sort of quick-growing lichen might) or intrinsic changes in the properties of the mountain itself—it does not change colour or shape as a result of changing weather, nor does it up and leave in dark storms—but are to do with the way that the light, scenery and its own sense organs interact. That is, it has to be able to grasp certain facts about perceptual conditions. Should a drop of rain land on one of its eyes, it has to be able to grasp that the world has not undergone some horrible spatial distortion but that it has a drop of water in its eye which is affecting its ability to perceive the world (and its weather). Such cases as the last might involve experiences that misrepresent the world to such an extent that they can be described as illusory; it is only our familiarity with such instances (and the fact that we can easily rub our eyes to clear them) that leads us to overlook just how different things look at such times.

Even if the Weather Watcher never actually has any such illusory experience, whether it be hallucination, dream, or whatever, the requirement still holds. To have command of the very idea of perception is in part to comprehend the fact that one has an awareness of one's local environment, of something distinct from oneself. It also entails a grasp of the fact that perception is actually a relationship between oneself and certain external objects and features. Part of what is involved here is the acknowledgement that one's physical and mental state contributes something to the act of perception and the resulting experience oneself. Now, it follows immediately from this idea that one's contribution may be lesser or greater in individual cases, and it is a simple step from this to a grasp of the possibility of non-veridical perception, particularly when these are understood as cases in which the environment contributes little or nothing to the experience.²¹⁰

I want to argue that the Weather Watchers would be unable to grasp this

²¹⁰ This holds for all perceivers. It might be thought that young children are unable to grasp this distinction, but the fact that they can distinguish between dreams, fiction, etc., and reality, demonstrates just such a understanding. Of course they may not always be able to employ it correctly, but this is a different point.

distinction—they would be unable to conceive of the idea of objectivity in the absence of active experience. The claim is not that for any particular episode of experience, a Watcher would be unable to *justify* its assertion that it was or was not veridical. Rather, the claim is that the Watchers will not be able to ascribe sufficient content to any distinction that they might apply in their experience to constitute an acknowledgement of objectivity, of the distinction between the veridical and the non-veridical. This is a constitutive issue, not one which merely concerns the successful application of an already-possessed concept. The argument will turn upon the claim that any distinction that the Watchers do apply is not sufficiently removed from their ability to choose which distinction to apply to constitute the recognition of a mind-independent reality.

To hold that one is now perceiving an objective feature of the world is to make a defeasible judgement. This entails that for any episode of experience the subject must be able to make sense of the possibility that the content of the experience does not reflect the state of the world distinct from the experience, and that he is able to judge on this matter. There is no requirement that the subject be correct, nor even that he feel certain. There is, after all, no intrinsic feature of the experience that infallibly indicates whether it is veridical—all experience admits the logical possibility of sceptical doubt, even if one is not in fact inclined to entertain such doubt.²¹¹ To rephrase the main point, the subject cannot tell from that experience alone whether it truly represents the actual state of the world; it seems that one requires something else in order to reach a (warranted if defeasible) answer. The question then arises as to how one might reach a decision concerning the status of any particular experience. Part of the answer with particular relevance here might be that the experience should cohere in some way with the rest of the subject's experiential history and beliefs about the world. That is, one reason that a subject may give as justification for treating an episode of experience as veridical (or non-veridical) would be that it fits (does not fit) with his beliefs and earlier experiences. Imagine, for example, seeing a brief, small, red flash of light in a dark room. Even though one's eyes often deceive one in such situations, one may be inclined to treat

²¹¹ This, it should be stressed, is not to deny the point that any perceptual experience comes with an implicit claim of veracity. The fact that one has an experience as of a glass in front of one is enough *ceteris paribus* to warrant the claim that there *is* a glass in front of one. One must possess the concept of veridicality to grasp this, though.

the experience as veridical if one knows that the answering machine, which has a red light on it, is in that part of the room and that one has seen it flash for no apparent reason in the past.

That a perceptual experience coheres with one's other experiences and beliefs is a valid reason for judging it to be veridical. We should expect such coherence within one's set of beliefs; in particular we would expect it to cohere with those beliefs that constitute the subject's simple theory of perception and intuitive physical theory, which jointly might be thought to constitute the subject's background theory of the world. Were it not to do so, this would be a *prima facie* reason for treating it as illusory, for holding that something had gone wrong at some point in the perceptual process. Employing the coherence between beliefs and experiences in this way is unobjectionable; there are also grounds for holding that it is necessary. As noted, no episode of experience comes with a guarantee as to its veracity. If one is to be justified in holding that it is representative of the state of the world, one should be able to cite some positive reason for one's adoption of the belief. The fact that it does not contradict other beliefs and experiences is not enough; we will expect it to positively cohere as well. If one sees an elephant in the street, one is not justified in holding that this experience is veridical solely because it does not contradict one's general beliefs about the world; rather, what does justify such a belief is the fact that one already has the belief that the circus is in town, and has experience to support this (e.g. seeing a big top on the green).

For episodes of experience to cohere with each other is for some principled relation to hold amongst them. Coherence is a relation that holds internally between experiences, beliefs or propositions. In the present context, what is required is that a subject should be able to identify the particular relationship that holds between experiences in virtue of which they are veridical, and thus relate to an objective world. In other words, the subject has to be able to pick out certain regularities within its experience which are caused by regularities within the world. This goes beyond the issue of justification, and concerns the constitutive issue of what makes it the case that a set of experiences are *of* an external, objective reality.

The problem is that we can find innumerable regularities holding over episodes of experience, many of which hold across the veridical–non-veridical

divide. To put it another way, for most non-veridical experiences, there will be things that they have in common with many veridical experiences. This can be clearly seen in the case of illusions and hallucinations. To hallucinate hearing a voice or seeing an oasis is in certain respects similar to actually hearing a voice or seeing an oasis (this is platitudinously true, as can be seen from the descriptions that we give to such experiences).²¹² Likewise in the case of illusions it appears to one that something is the case when it is not (even when one knows that one is deceived in certain cases). One can hallucinate seeing something red; one can see something red. And one can hold similar attitudes to non-veridical experiences as one holds to veridical experiences—one can be convinced of the veracity of both, at least for a period of time. Such cases bring home the important and obvious point that not any form of similarity—not just any old coherence—will do when we are looking for evidence as to whether an experience is veridical or not.

What we require is that the selected coherence should provide us with some account of the relationship between oneself and the external environment. The least that is required is a notion of coherence that is itself explained by and in accord with certain general principles concerning both the nature of perception and the requirement of physical significance.²¹³ The similarities or forms of coherence that one latches onto must reflect beliefs concerning one's connection to one's environment; in particular they must reflect beliefs concerning the ways in which experiences (both veridical and non-veridical) may arise. This is because the very concept of perception itself contains the idea that experience is the upshot of two factors—the state of the world and the state of the subject—and that this is a systematic, rule-governed process. What one needs, then, is some grasp of the rules which govern the interactions between subject and environment in perception.

These rules will not only have to include certain necessary facts about perception, but also some account of the physical laws that underlie the course of the subject's experience. The subject has to be able to at least attempt to capture such laws, in that these underlie and explain the physical processes which give rise to the

²¹² It might be worth mentioning that the present discussion does not take a stand on the 'highest common factor' view of perceptual experience. Cf. Millar (1991).

²¹³ Cf. Strawson's comments on the role of dependence in the concept of perception in P. F. Strawson (1992), Ch. 5.

perceptual experiences the subject has and the worldly events it perceives. This is a substantial epistemological task: these laws are not a priori, logically necessary, or reducible to features of the subject's psychology. It is conceivable that the world could have existed with different physical laws (a Newtonian universe is not logically impossible, for example). To say that such laws are a posteriori is not to deny the point that it is a necessary truth that it must seem to the subject that *some* form of law-like dependence must hold between world and subject if the concept of perception is to get a hold—the precise nature of this dependence can be open to empirical investigation.²¹⁴ Given this, we would expect that a subject should be able to revise its beliefs about the nature of the world in light of later evidence.

If the Watchers are to grasp the veridical–non-veridical distinction, they have to be able to try and identify those regularities within experience which are explained by regularities in the world. In other words, what the Watchers have to do is identify a coherent set of experiences which constitutes the class of veridical experiences. Obviously, not any form of coherence will suffice. Simply identifying a subset of one's experiences as coherent does not constitute a recognition of veridicality.

It is worth clarifying what the Watchers must be able to do here. The thought is that to hold that an episode of experience e represents an external, spatial reality is in part to hold that e is veridical, and this is to make a judgement about the status of e . This judgement has to be based upon some grounds; the veracity (or otherwise) of e is not implicit in e itself. Part of judging is grasping what counts as relevant evidence in the case of any particular episode, and part of this is establishing which regularities within experience are relevant to the issue of veracity. The Watchers have to accommodate these truths about perception if they are to have experience that can play any role in their system of judgement, thought and belief, and thus if they are to employ spatial concepts. The Weather Watchers' task is then twofold: (1) they have to be able to arrive at a belief as to which regularities within experience constitute or correctly represent the veridical–non-veridical distinction; and (2) they have to be able to reach a decision concerning the status of any

²¹⁴ Cf. P. F. Strawson (1992), p. 60. Strawson's stronger claim—that there must *be* such a dependence between subject and objective reality—may seem open to Stroud's general criticism of transcendental arguments, which in this case would amount to the claim that all we can reasonably claim is that the subject must *believe* that some form of law-like dependence must hold if she is to possess the concept *perception*. I will not address this point as I am not making the stronger claim.

particular e , relying only upon passive experience in both cases. Of course, these two tasks are not independent of each other; an answer to the first will underlie any answer to the second—or, to put it more strongly, an answer to the second must be explained and justified by an answer to the first. This is unproblematic in itself; the substantial problem arises out of the demand that the Watcher should recognize that the particular form of coherence employed must encapsulate the idea of objectivity.

There are two ways in which the Watcher might try to make sense of the idea that the particular form of coherence it latches on to captures the distinction between the veridical and the non-veridical. The first would be to hold that this coherence is *constitutive* of the veridical—for an experience to be veridical is for it to cohere in just this way with the Watcher's other beliefs and experiences. The second would be that the coherence correctly *captures*, or *represents*, or *corresponds* to the fact of the matter about the state of the world, i.e. that its set of beliefs are just those which are veridical. Let us look at these in turn.

Under the first suggestion, for an experience to be veridical is just for it to cohere with the Watcher's other beliefs and experiences. There is no other criterion it has to meet; the coherence does not have to be supplemented with any statement to the effect that *this is how the world actually is*. Veridicality would be an internal relation between experiences and beliefs: to discover whether an experience was veridical would be to establish whether it cohered with one's other experiences and beliefs. One of the benefits of such an approach is that it does allow the Watcher to establish whether or not an experience is veridical; the subject does not have to gain access to a mind-independent realm in order to make a judgement concerning an episode of experience. This would prevent any strong sceptical challenge concerning the subject's ability to do just that from getting a hold. It would also fit with the fact that we employ coherence as a criterion for justifying the acceptance of particular experiences; this would be explained by the fact that coherence is precisely the property required. That is, the present suggestion would explain our use of coherence as a test for veridicality by claiming that the two are straightforwardly identical.

The Watcher in effect would be holding a pure coherence theory of truth, i.e.

a coherence theory which holds over all areas of discourse.²¹⁵ The merits and demerits of such theories are well-known, and I do not want to spend time rehearsing these here. Instead, I want to focus on certain aspects of such theories which are of particular relevance to the present issue. The first thing that we might note is that the theory has to apply to one's perceptual beliefs, those beliefs concerning what is presented to one in experience and the status of these experiences. Whether one is actually perceiving a man lurking in the corner or just a shadow will depend upon which coheres in the appropriate way with one's other beliefs, particularly one's other perceptual beliefs.

This entails that one cannot grant any special status to one's perceptual intake in this case. Ralph Walker notes that there is a plausible reading of Kant whereby he conceives of sense experience as providing a criterion for establishing the truth of certain beliefs; the truth or otherwise of these beliefs is determined by how well they fit with one's experience. There will be other beliefs whose truth is established through their coherence with the rest of one's system of beliefs.²¹⁶ This sort of division cannot be employed in the present case by the Watchers. What they have to be able to do is determine whether an experience is a veridical; their experience cannot therefore provide an independent standard by which certain of their beliefs are measured. The truth-values of beliefs about the status of particular perceptions have to be established through their relationship with other beliefs and experiences.

Unfortunately, a pure coherence theory employed to determine the veracity of one's episodes of experience is subject to the serious objections facing all such theories. In particular, it is open to Russell's objection that it allows any specific experience to be held to be veridical as long as one holds coherent opinions about one's other experiences and beliefs. For whichever experience we take, if we can find a set of experiences with which it is suitably coherent (however this is fleshed out), then it will be veridical. That is to say, it is not merely the case that these other experiences will provide one with justification for believing that the experience is veridical; since the veracity of an experience consists only in its internal relations with other episodes of experience, the experience will actually be veridical. Consider having an experience of a distant oasis after one has been trekking through

²¹⁵ Cf. Walker (1997).

the desert for days. If all that the veracity of this experience consists in is that it is suitably coherent with other experiences, one will always be able to render it veridical by adopting suitable attitudes to other experiences one has. For example, let us assume that as one nears the oasis it seems to fade and disappear. One could still ensure that one's initial perception of an oasis was veridical by holding that one's later experiences of empty desert were non-veridical. No matter what restrictions we place upon the exact nature of the internal relations that constitute the appropriate form of coherence, it still seems plausible to suggest that we will always be able to specify a set of experiences which will make a particular experience veridical.

This is deeply problematic. It is no use insisting that the coherence must hold between experiences which the subject already *believes*; unless *believes* here means *holds veridical* it is not clear what it could mean, and it cannot mean this if we are to have any sort of elucidatory account of veridicality at all. To rephrase this point, if an experience is veridical if and only if it coheres with the subject's other beliefs, then we require an account of what it is to believe something. But standardly to believe *p* is to hold *p* to be true, i.e. that it correctly characterizes the state of the world. However, for something to capture the facts is for it to be true; in the case of experience this is for it to be veridical. This cannot be correct—we would be left with an account which is wholly lacking in explanatory value.²¹⁷

There are no obvious replies to this point. In particular, any attempt to limit the experiences which the coherence can hold over without employing the notion of *veridicality* is bound to fail. As noted above, there are no intrinsic qualities which distinguish veridical experiences; one cannot tell from that experience alone that it is not illusory. Alternatively, one might try to claim that the subject should hold some specified positive attitude (which necessarily falls short of belief or acceptance) towards certain experiences if they are to be held veridical. This cannot succeed, though. To favour a particular episode of experience in any way that falls short of believing it seems at most to desire or wish it to be veridical, and any distinction based on this would only succeed in blurring the distinction between *seems veridical* and *is veridical*. Without an ability to discriminate between these, the subject cannot

²¹⁶ *ibid.*, p. 311.

possess the relevant concepts. To suggest that such a criterion could capture the notion of veridicality would just amount to allowing that the subject can decree which experiences are veridical, and this fails entirely to capture the notion.

To claim that an experience is veridical is to do more than claim that it coheres with one's other beliefs and experiences: it is to claim that it captures, or truly represents, or corresponds to some state of affairs in the world. To acknowledge this is not to commit oneself to any particular correspondence theory (of belief, justification or truth). It merely serves to capture the content of one of the main constraints upon our experiential control, that the content of one's perceptual experiences is in part due to something distinct from oneself. One who denied this would be precisely denying that perceptual experience presents us with an objective world, the fact with which we are presently concerned. To hold that one's experience is perceptual is to hold that it is of something other than one's own states.

If we allow that a Watcher could possess a coherent system of beliefs, the question that arises is how such a system might furnish the Watcher with a conception of an external reality. Part of the answer would be that the Watcher's system should provide it with the means to represent to itself a geometrical framework of interlocking spaces which could, but might not, be used to represent physical, spatial reality. By employing such a framework, the Watcher would be able to explain the changing course of its experience in terms of the changing relations between itself and the other items within the space. Essential to this is the idea that the Watcher's experience is partly determined by the state of the world, i.e. that the contents of perceptual experience are primarily caused by the external reality it represents. It has to recognize that its perceptual beliefs should attempt to capture the fact of the matter about external states of affairs that hold independent of its desires as to what should be the case. The present state of the world determines the facts, as well as the content of our perceptual beliefs, at least in cases of veridical perception. Perceptual beliefs are precisely *about* something distinct from oneself; one is not free to choose what to believe about the world. To think this possible would be to allow that one's beliefs could determine the content of the world, in that one would be effectively decreeing what was the case and what was not, and this

²¹⁷ Cf. Walker (1997), pp. 316-7.

would be to fail to acknowledge the mind-independent nature of the world.

The second way in which a Watcher might understand the connection between the particular form of coherence it employs and the state of the world is by holding that the former attempts to capture, or correctly represent, the latter. That is, the Watcher must be able to acknowledge that the state of the world and the corresponding facts about the status of its perceptual experience are independent of its desires; it must, in other words, grasp the objectivity of the world. The reason that some form of coherence between experiences would be relevant is that the world itself is coherent; the regularities that it finds within its experience correlate with those found in the world. What is required is that the Watcher should attempt to latch on to just those regularities within its experience which are explained by the regularities in the world. The issue is how the Watcher might grasp this requirement.

If the Watcher is to grasp that its selection of a particular set of coherent experiences and beliefs is supposed to capture the objective fact of the matter (i.e. facts whose content goes beyond whether a certain group of experiences are internally coherent), it has to grasp that it is making a defeasible decision. There is a fact of the matter as to whether it gets its selection right or not: its experiences and the actual state of the world can come apart. If the Watcher is to make sense of this, we might expect two things to be the case: firstly, that it should be able to evaluate its attempt, i.e. to judge whether it has latched on to the correct regularities, or has got it substantially wrong, or is somewhere in between; secondly, that it should be able to base its attempts at establishing the correct regularities upon some relevant grounds or evidence.

The reason for this turns upon certain facts about all goal-oriented behaviour. If we are to understand any behaviour as aimed at a certain outcome or range of outcomes, whether this be the tying of a shoelace, the statement of a historical fact, the negotiating of an assault course or the baking of a cake, we have to view the subject as being aware of what it is doing. Part of grasping this is understanding what it would be for the action to be successful; but, more than this, we should also expect the subject to be able to recognize when the act has been a success. Knowing how to do ϕ will standardly involve knowing how to tell whether one's attempts at ϕ

ing have been fruitful. Without such an ability, the subject would be in no better a situation than the subject described in §1.3.2 above, who was unable to engage in physical activity in the absence of perceptual feedback. In such cases (where the subject lacks any feedback concerning the outcome of its tryings), there seems little that might serve to make the attempt one aimed at just that particular outcome.

What might allow us to make sense of the idea that the subject was trying to do ϕ rather than γ ? Even if the subject did ϕ more times than not, the question still arises, for it could feasibly be the case that the subject was consistently failing in doing γ . In the absence of further attempts by the subject modified (or not) in response to its awareness of the outcome of the prior attempts, the situation is radically underdetermined.

This is not to say that reports of one's success need come through one's own experience of the outcome; testimonial evidence would be perfectly acceptable, for example. Of course, one might not always be able to establish the success of any *particular* ϕ -ing. For example, we can imagine a radio-operator on a sinking ship choosing to stay and face certain death in order that he might try to send a mayday signal and help save the rest of the crew. In such a case, the operator might never know whether the message was actually sent (or received). Nevertheless, he still knew what it would be for his attempt to succeed, due to his prior experience of successful radio communication.

The reason why we can understand the operator's behaviour as constituting an action with that specific goal is because he was already aware of the fact that it was the right procedure to follow in order to achieve the desired outcome. In the absence of the ability to determine whether the attempt was a success, if we are to regard it *as* such an attempt—as being an action at all—we would look for some reason to hold that the subject knew what he or she was doing. That is, the subject should have some grounds for believing that doing ϕ and not γ is the way to achieve the outcome in question; it should be able to tell that ϕ -ing is the right kind of thing to bring about the desired goal. We can make sense of the idea of a 'shot in the dark', but only in cases where the subject already possesses a grasp of the fact that the action is of the right sort, i.e. has some grounds for the belief that the action might succeed.

It is not clear our Weather Watcher has either. It has to understand itself as attempting to establish which regularities match those in the world, but it is not clear that it can either (a) detect whether it has been successful or (b) have any initial grounds for holding that its attempt might succeed. Let us look at these in turn.

First, what might allow the Watcher to judge whether it had been successful in arriving at just those regularities which would distinguish veridical from non-veridical experience? It has to be able to make sense of the idea that the regularities it finds in its experience are due to certain necessary facts about perception and the physical laws of the world, and not just its own selection of which discriminatory principles to apply in its experience. That is, given the rejection of the constitutive option above it must see itself as aiming at the empirical fact of the matter. One suggestion might be that the Watcher is making an empirical hypothesis about the state of the world; it is hypothesizing that the world is like this. Such a hypothesis could be tested in the light of future experience, in which case its predictive power could be taken into account, the suggestion might go. If the regularities and resulting predictions accorded with the experience they would be retained; if they contradicted experience they would have to be rejected or revised.

If this is the case, we would expect that two things might happen in the light of future evidence. The regularities could be rejected and replaced with new ones, or they could be retained and the perceptual experience rejected as misleading. Given that the laws concern perception itself, the latter would amount to the claim that the new experience is non-veridical. These are just the two options that we should expect to find. Not only should one be able to judge that certain experiences are non-veridical, one should also be able to revise certain of one's prior beliefs about the state and laws of the world in the light of new evidence (the latter, after all, is a fundamental premise of scientific method). If one cannot revise these beliefs, one seems to be in the position of holding that the coherence one has opted for just *is* the coherence found in the world, and that there is no further question concerning this matter. This is equivalent to the constitutive position already rejected.

The problem is that it is not easy to see how the Watcher could give sense to the suggestion that it might revise its selection of regularities, i.e. the particular form of coherence chosen. This turns upon the fact that the only criteria that the Watcher

is employing in judging as to the veracity of its perceptions is how well they cohere *in just this way* with its other experiences. There appears no way in which it can question the correctness of the criterion it is applying. The criterion—the particular coherent system or regularity—that the Watcher is employing is not open to any easy refutation or revision. If the Watcher was to be able to question its chosen form of coherence, the idea would have to be that the regularities that it used to establish its notion of veridicality were not indicative of this after all. But this suggestion could not make any sense to such a creature; the notion of veridicality is too closely connected to those specific regularities and episodes of experience: the circle is too tight to do any substantial work, and in particular to allow for the ascription of objectivity to the principles in question.

To see this, consider how the Watcher must regard new experience. Should it gain perceptual experience that does not fit with the particular regularities it is employing, it would have to hold that this experience was non-veridical. The experience cannot act as evidence against the regularities employed; these constitute the only standard that the Watcher has. In order for the Watcher to do this, it would have to be able to use evidence gained through the use of a particular standard as a means of judging just that standard. This clearly cannot work; it would be as if one attempted to check the correctness of a particular metre stick by measuring it with itself. In other words, the Watcher is unable to revise its beliefs concerning the physical laws governing the external reality. As noted above, these are neither a priori or logically necessary. If the Watcher is to capture this fact, it has to be able to revise its postulated laws in the light of appropriate evidence. But no such evidence can be forthcoming; the regularities that the subject employs are too closely connected to the experience that it treats as veridical for it to find any reason to revise the laws.²¹⁸

The alternative suggestion would be that we try to make sense of the idea that

²¹⁸ It should be noted that to suggest that the Watchers might be innately inclined to believe or develop certain specific principles would do them no good in the present context—the issue of rational justification goes beyond what one is just inclined to think. It is worth mentioning this possibility because we might reasonably hold that animals lacking conceptual capacities are just innately inclined—or have brute dispositions—to behave in accord with what we could grasp as general laws, which allows them to get on perfectly well in their local environments. We can also see how physical significance could be ascribed to such general laws; cf. Brewer (1992) in this context.

the Watcher was attempting to establish a criterion for distinguishing veridical from non-veridical experience by looking at the grounds upon which the Watcher's efforts are based to see if these might constitute pertinent evidence for such an attempt. If we could determine that the Watcher was aiming at that distinction as opposed to any others which could be drawn by the employment of a form of coherence (e.g. the pleasant–unpleasant distinction), we might have grounds for attributing a grasp of the relevant concepts to it. That is, if we could establish that the Watcher was basing its decision upon evidence that was relevant only to the issue of veridicality, we might recognize that the Watcher was attempting to establish a criterion for judgements about the veridicality of its experience. The problem in this context is that it is not clear that there is anything that act as evidence even in principle. Certainly, the creature's experience cannot; to allow it to do so would be to make a judgement about the status of those tracts of experience employed. This just would be to presuppose the issue at hand, in that the creature is precisely trying to establish grounds for preferring certain experiences over others.²¹⁹

Without the ability to make a principled attempt based on some reasonable expectation of success, and without the ability to establish whether its attempt had been successful, it is difficult to see anything that might entail that it is veridicality that the Watcher is aiming at. It would be in a similar situation to the subject attempting to act in the complete absence of any form of perceptual experience. In both cases, there is no prior reason to assert that the subject is aiming at any particular goal, and nothing that could constitute a recognition of success or failure. We cannot even resort to any stated intention on the subject's part to help in determining the nature of the desired goal (and thus establishing that the subject does possess the relevant concept), for what would enable us to ascribe just that intention to the creature, especially in the absence of any relevant evidence or criteria for establishing success? For the Watcher to have been aiming at veridicality, we would expect there to be something that would determine that *this* was its intended target, and not some other property that might hold over episodes of experience. For example, what might distinguish an attempt to pick out those episodes of experience which were veridical from an attempt to pick out those which were most satisfying

Such dispositions fail to be sufficient as soon as we enter the rational sphere, where reasons are required to supplement causes.

aesthetically, or those which most accorded with the Watcher's desires? We can, after all, conceive of a situation in which a subject insists on denying that a certain event occurred, and alters its other beliefs, including his perceptual beliefs, accordingly. This would not be an exercise in trying to establish the fact of the matter about the world; it would be an exercise in wish-fulfilment or denial. Yet in the case of the Watcher appears to be nothing to distinguish these. If this is the case, then there appears no grounds for ascribing an awareness of objectivity to such creatures. A grasp of objectivity was supposed to be displayed through the fact that the subjects could distinguish—or, at the very least, could attempt to draw a distinction between—experiences that were veridical and those that were not.

The fundamental problem is that the regularities that the Watchers establish and the resulting laws are too closely connected to the experiences that are to count as veridical. Establishing law-like generalizations will depend upon the selection of experiences which one wishes to count as veridical (there is no point looking for regularities that hold in cases of misperception); establishing which experiences are veridical depends upon which regularities one expects to find in them. To put it another way, the Watcher would have to decide which experiences to take into account and which to set aside in arriving at the appropriate generalizations, i.e. the appropriate notion of coherence. Such a procedure must either be acknowledged as being arbitrary or must depend upon some claim of veracity. The first will not do, in that to hold that an experience is veridical is to do more than just grant a certain status to it, or categorize it in a certain way. And it is also not an option merely to legislate concerning the laws of nature. The latter, however, cannot work either, because this would leave the Watcher in the position of trying to choose which experiences to hold as veridical based only upon certain rules that are arrived at solely on the basis of the selection of a class of experiences as suitable and appropriate—as veridical, in other words. There would be no gap between 'seems veridical' and 'is veridical' in such a situation, nothing left open to question in this way (and, interestingly, no gap left for scepticism either). Such a situation would singularly fail to meet the physical significance requirement, in that part of what constituted this was that the subject should be able to recognize the independence of the world—to acknowledge the independent contribution made in experience by the

²¹⁹ Cf. Stevenson (1982), §4.31.

world, and recognize that what is or is not the case is not up to the subject to determine.²²⁰ If the subject is unable to make space in her beliefs for the possibility that what she believes may not be the case, then she fails to recognize this independence. Without this, the subject is left with a form of coherentism that might well be described as leaving no room in experience for the world—a true “frictionless spinning in the void”, to use McDowell’s phrase.

It should be stressed that these problems arise from the fact that the Watchers are employing *passive* experience in this way, and not from the fact experience per se has a role. One reason why the veridical–non-veridical distinction is unavailable to the Watchers is that they have no grounds for holding that the regularities they employed in classifying their experiences were in any way related to the regularities in the world. On the one hand the former do not constitute the latter; on the other they can have no reason to hold that the former serve to capture the latter, as the selection of evidence was determined by the regularity proposed. The distinction is entirely outwith their grasp.

The reason that this is not so in our case turns upon certain differences between active and passive experience. All of the Watchers’ experience was of a par; there were no fundamental distinctions to draw between kinds of experience which might serve to provide them with reason to employ some regularities over others. Passive experience just comes to the subject, who then has to decide what to make of it. Such experience places few restrictions on the regularities that the subject can employ. Precisely because the subject has no role to play in bringing the perceptual experience about, the possible interpretations increase.

With active experience there are fewer regularities that will accord with the fact that the outcome of an action was as expected. One actively brings about one’s experience in a premeditated way to a significant degree in cases of physical behaviour. When one attempts to do something, one has some expectation as to the range of possible experience that might result, corresponding to the various ways in

²²⁰ This is similar to the difficulties that Bennett encounters when trying to argue transcendently from the possibility of judgements about the past to the necessity of objective judgements (see Bennett (1979), p. 55, and (1966), p. 209). All he really manages to achieve is an argument that shows that a system of law-like generalizations is required. He finds that he cannot move from this to

which one might succeed or fail. The simpler the action, the fewer the possibilities acknowledged. It is important to note that this awareness of the possible experience resulting from an action precedes the action itself; it is not a matter of only interpreting experience after the fact. Despite the somewhat paradoxical appearance of the claim, our active abilities actually put us in less of a position to choose how to interpret our experiences than the Watchers are. Our experiences are ultimately constrained by those constraints discussed in Chapter One above.

That one can continue to be successful in one's actions seems to provide some grounds for holding that one's experience is generally veridical. Of course, one might be wrong as to the status of any particular experience concerning the outcome of an action; one might believe that one had succeeded when this was not the case. However, errors of this kind could not continue indefinitely; one's perception of the success or otherwise of any specific action will often be employed in the planning and execution of further actions. If action and perception were to consistently come apart, for example if one continually attempted to act using non-veridical experience as one's starting point, one would soon find oneself unable to act. Action depends upon veridical perception; without reliable experience, action soon comes to a halt.

We can make the stronger point that in our own case very little of our experience is purely passive. Generally, most of one's experience arises through interacting with one's environment, whether this consists of substantial activity such as manoeuvring oneself through a busy supermarket with one's trolley while scanning the shelves for a particular item, or merely sitting on one's couch casting one's eyes around the room. Episodes of purely passive experience stand out from the rest of one's experience; it is rare for one to remain completely motionless, without even moving one's eyes or fidgeting, for any period of time at all.²²¹ We can also note again that one's activity standardly involves a great deal of perceptual feedback and corresponding adjustment, as discussed in Chapter One. Even something as simple as scratching an itch will involve moving one's finger to the correct bodily location (which also normally involves some degree of searching for

the necessity of objective judgements (see also Stevenson (1982), §4.31)—this is exactly the problem that the Watchers face here.

²²¹ Excepting when one is asleep, of course.

just the spot), adjusting the force one applies relative to the strength of the itch, following the itch should it appear to move, and so on.

In active experience one has a prior but defeasible expectation as to what will occur. This allows one access to the idea that one's experience might be veridical. Activity involves the possibility of both success and failure; one cannot choose to ignore the failures—to treat any experience to this effect as illusory—if one is to continue with one's activities. Were one to attempt to do this, one would soon lose one's grasp of the actual state of the world and one suffer a consequential loss of one's possibilities for future action. If one has no grasp whatsoever of the present state of the world, then one will be completely unable to plan or perform action.

It is worth noting that there is an issue as to whether one holds that the role of success here should suggest a pragmatic-coherentist theory of truth (i.e. that success is constitutive of truth) or should merely act as evidence for the correctness of the principles one is employing. These options correspond to the two options discussed above in the Watchers' case. This issue goes beyond the scope of this thesis, and I will not argue either way here. The point I do want to stress is that success does have some role to play, however we decide to expand upon this.

The main point is that there is no equivalent notion of success in the passive case. It seems off-key to talk of any principle that the Watchers might employ as succeeding in providing it with results along the lines of 'this experience is veridical', 'this one is non-veridical', and so on. As was demonstrated above, the results that the principle provides are solely due to the arbitrary selection of that principle; it tells them nothing about the state of affairs in the world. They are effectively defining what is to count as veridical, and this is no sort of success at all.

However, it might be thought that some suggestion in this vein might work. Specifically, the thought might be that the Watchers can utilize something akin to the notion of success by requiring that the regularities employed should maximize the amount of experience rendered veridical. The idea would be that by and large our senses do not deceive us; given this, we should try to establish which principles entail that we are correct most often. Whichever distinction did so would be the one that best served to capture the veridical–non-veridical distinction. Unfortunately, the

problem here is that it seems to rule out a priori that we might get things substantially wrong. That we are successful in being able to continue acting is a matter of fact. It seems entirely possible that a creature initially capable of active experience might cease to be so, should its beliefs diverge from the fact of the matter about the world to any significant extent. That one can go on with one's activities is an achievement; in contrast to this, the present suggestion would just define the Watchers as successful by presupposing their success. But to attempt to do this is to thoroughly misrepresent the nature of success.

It is worth commenting at this point that the suggestion that we can have grounds for holding that our experience is veridical should not be taken to suggest that active experience somehow plays a foundational role in one's system of beliefs. It certainly plays a central role, but there is no suggestion that perceptual beliefs concerning the results of one's actions are either immune from doubt or self-justifying. We can freely admit that on occasion one's experience will mislead one; certain examples of this were discussed in Chapter One. The point is instead that one's continued ability to gain further active experience is evidence for its general veracity; it does not follow from this that any particular tract of active experience must be veridical. Such experiences do not stand alone either; we can only make sense of an episode of active experience in terms of the accompanying (conceptual or nonconceptual) grasp of an intuitive mechanics, as discussed in the preceding section. The relevant point is that although active experience plays this crucial role in allowing us access to the idea that most or some of our experience's are veridical, any decision concerning a particular episode of active experience is open to defeat. One's beliefs in the success of one's actions is in part justified by how well the experience coheres with one's other beliefs, e.g. about whether actions of this sort are generally successful, about whether one is in a good position to judge as to its success, and so on. But this coherence does not constitute the only ground that one has for holding a particular experience to be (more or less) veridical. The fact that it feeds into one's ability to continue acting is vital, as is the fact that generally one does not find all one's later possibilities for action closed.

Equally, the above argument does not turn upon any verificationist principles. One's active experience does not provide an independent test for the

principles that one is employing; it does not allow these to be verified. As just noted, whether the active experience coheres with one's prior beliefs and expectations will provide us with evidence for any judgement concerning its veracity. In continuing to act one need not see oneself as verifying the particular regularities one is employing in one's acting. The principles used in action will always be open to revision in the light of later evidence; such revision, though, will be constrained by whether it allows us to proceed with further actions. It is this continuing success that matters, and not whether one regards this success as verifying one's methods.

We can conceive of another line of objection to the above argument. It might be stressed that there remains the logical possibility that one's experience of one's actions and the facts of the matter can come apart, as acknowledged in §1.4. One might consistently experience oneself as active when this is not the case. Given this, it might be suggested that we are in no better a situation than the Watchers, in that we are just as unable to establish that one's experience (in this case the experience as of one's activity) is at all veridical.

Such an objection misses the point. Precisely because we have active experience—and *irrespective* of whether it is actually veridical or not—we are able to grasp the key distinction. Whether large parts of our experience is illusory or not is beside the point; the issue is not whether we correctly apply the distinction. In active experience (specifically, in non-mental, experiential activity) it appears to one that one is bringing about change in one's environment. The prior grasp that one displays of the possible experiential outcomes and their resulting occurrence provides one with the grounds for holding that certain perceptions are veridical, whether this should turn out to be the case or not. Perceptual judgements are defeasible; the present objection overlooks this fact, and confuses the grounds one might have for *holding* that an experience is veridical with its actually *being* veridical.

§3.7 Possible objections

I want to briefly address one objection that might be brought against the above arguments before moving on to see what Galen Strawson has to say in response to the above line of thought. The worry is that the arguments only succeed due to the fact that they presuppose some spatial awareness; the content of one's active experience is already spatial, and it is this that allows one to grasp the notion of an object and to conceive of the veridical–non-veridical distinction.

It might be worthwhile reflecting briefly on our system of beliefs in this context. In our case, we can identify certain principles that serve to constitute our concept of an object. These were touched upon in the preceding section, and included the fact that two objects cannot occupy the same space, that objects are subject to certain sorts of forces that are not applicable to other spatial features such as holograms, that they can exert such forces themselves, that objects have mass, and extension, that the present state of an object will depend in part upon its previous states (objects are internally causally connected), and so on. We can also understand the fact that physical objects exist within a system of spatial relations, in which all locations are connected, and in which one exists as one object amongst many.

It is the fact that these beliefs capture the facts about our pre-existing abilities to interact with other objects that gives them their content, as suggested in §3.5 above. We are able to get about in the world, recognize and manipulate objects, etc., before we are able to conceptualize the fact that we are doing so. These abilities precede the development of our conceptual skills; nevertheless, they are still essentially spatial abilities. We can see this by contrasting the following two cases. We can imagine two creatures trained to respond to the production of a certain stimulus, say the ringing of a bell. Upon the bell, one always looks to the left, no matter where it happens to be located. In contrast, the second always looks towards a certain place in its vicinity (i.e. in the laboratory or cage), say a food hatch, even when it is located at different points in the room. As far as these descriptions go, there is no reason to ascribe any sort of spatial awareness to the first subject. Its responses can be fully characterized in terms of

certain bodily or muscular responses. The second, however, clearly demonstrates spatial awareness. This can be seen from the fact that its responses vary according to its spatial relations with the target. In contrast to the responses of the first creature, these movements cannot be fully characterized without resorting to the employment of spatial terms—it is displaying a spatial ability, albeit of a very rudimentary sort. Similar methods could be used to determine whether the creature was also able to discriminate between objects and features, this involving abilities that go beyond the merely spatial. As far as the navigating abilities of the rodent in §3.5 go, these are purely spatial; its abilities to interact successfully with prey and its young, however, demonstrate that it is also acting in accordance with principles which demonstrate a practical grasp of what an object is.

It is just such abilities that a child will standardly possess prior to its developing linguistic abilities, including its mastery of spatial concepts. These abilities display an implicit or nonconceptual grasp of an intuitive physical theory, and it is just this that the later conceptual beliefs will seek to capture. A nonconceptual form of spatial awareness is already in place before one's conceptual apparatus is developed. One's nonconceptual spatial activities are sufficient to allow for the awareness that one's active input into one's experience is limited in certain crucial respects; the ability to successfully act within one's environment displays an implicit grasp of the mind-independent, objective nature of the world and the items therein.

This is unobjectionable in the present concept. As stated in the Introduction, it is the issue of *conceptual* spatial awareness in which we are interested. To object to the above arguments on the grounds that they presuppose certain nonconceptual abilities is inappropriate; it is precisely these abilities that underlie the conceptual level of thought. Of course, it is still the case that we should be able to give some account of what allows for the development of these nonconceptual abilities, and of what allows certain subjects with these to develop the capacity for conceptual spatial thought. Such questions, however, are outwith the scope of this dissertation and, given the relevance of developmental

psychology and similar fields to this issue, may also be largely outwith the scope of philosophy.

§3.7.1 Strawson's objections—innate spatial awareness?

Galen Strawson offers three replies against any objection to his 'argument from description' that "questions whether a creature incapable of intentional bodily movement and, in particular, of moving through space can possess a conception of an objective spatial order".²²² The one which we will focus on in this section turns upon the idea that a creature might just possess spatial concepts innately. This is actually the third of the three replies that he offers: the first is that giving the Weather Watchers spatial awareness is actually inessential to his main aim of decrying neobehaviourism; the second relates to the idea that the present thesis is 'implausible', and he offers a number of enhancements to the story in an attempt to illustrate this.

Regarding the first reply, one is tempted to say that it is no reply at all. In fact, if Strawson is willing to grant this point then the present thesis holds no relevance to his work at all. As noted in §1.1.2, I have nothing to say against his rejection of neobehaviourism. Given this, if all that Strawson had to say in this context was that he does not need the Weather Watchers to possess spatial awareness, we could set discussion of the thought experiment aside. However, his other two replies seem to suggest that the present line, concerning the proposed connection between spatial awareness and activity, goes against some deep intuition on his behalf. We will touch upon aspects of his second reply in the following chapters; for now, let us turn to the matter of innateness.

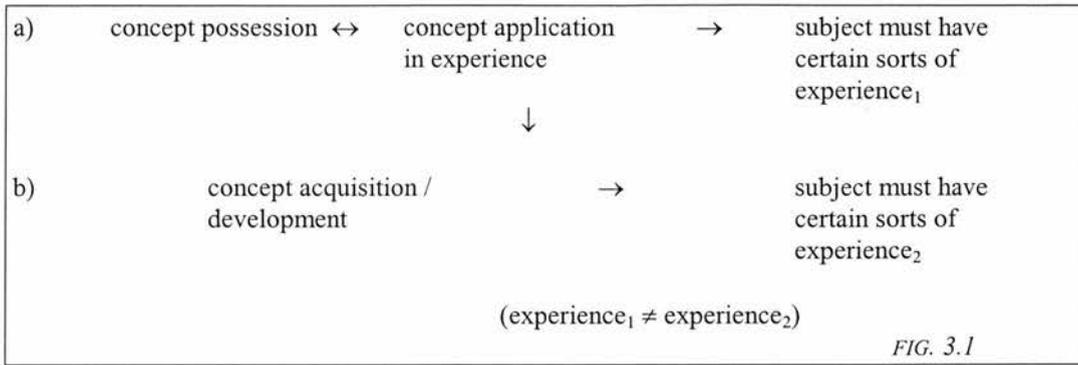
The above section questions whether a subject could obtain spatial concepts from a purely passive course of experience. This, of course, is not the only way in which a subject might come to possess concepts. It might be suggested that the subjects could possess the concepts innately, and that the experience they had would be enough to allow them to bring the concepts to bear. If we grant that spatial concepts *can* be applied in purely passive experience, then such a point would seem to satisfy the application criterion noted above. And

there are good grounds for allowing just this. If one wanted to deny this, and make the stronger claim that one must be undergoing active experience at time t in order to apply spatial concepts at t , then one would have to hold that a thoroughly paralysed person would be unable to think spatially or have experiences as of a spatial world even if he had been fully active at an earlier stage in his life. Such a claim would be strongly counter-intuitive, as well as open to empirical refutation.²²³ I am not arguing that a subject need have active experience at a particular time in order to apply spatial concepts at that time; I am only claiming that a subject need have (or have had) such experience if she is to develop or acquire such concepts.

What then can be said about innate spatial concepts? Initially, it might seem perfectly possible that a subject may just be innately disposed to develop a certain cluster of experiential concepts spontaneously upon having experience of a sort that would allow the subject to employ these concepts. I mention an innate disposition to spontaneously gain concepts rather than an innate possession of them in order to acknowledge the application requirement already mentioned. In other words, even if we deny that a subject could possess certain experiential concepts without being able to apply them within experience (and therefore could not possess them innately separate from the having of experience) it still seems reasonable to hold that the subject might just generate them once it did have the appropriate experience. This claim poses a substantial threat to the main thesis. We can see this by representing my claims diagrammatically (the following concerns only spatial concepts).

²²² G. Strawson (1994), §9.5, pp. 261-3. (This passage is from p. 261.)

²²³ There may well be questions concerning how well a subject in this state could employ spatial concepts in experience (long periods of numbness or even immersion in a sensory deprivation tank may well affect one's ability to correctly grasp the significance of sensations, etc.) but this is an empirical question, and not the issue here.



This captures two connected claims that I want to make. Part a) corresponds to the application requirement of concept possession; part b) represents the main claim of the thesis, when experience₂ is a suitable form of active experience.²²⁴ Experience₁ need not be identical to experience₂. This is because we have to allow that beings lacking active experience can still apply spatial concepts within experience (a completely paralysed person, for example). Experience₁, then, can be a suitable form of passive experience, whereas experience₂ is, according to the thesis, essentially active.²²⁵ To demand that ‘experience₁’ be replaced by ‘experience₂’ would be to deny the possibility that the paralysed individual could have spatial experience. This is, as just noted, not an option.

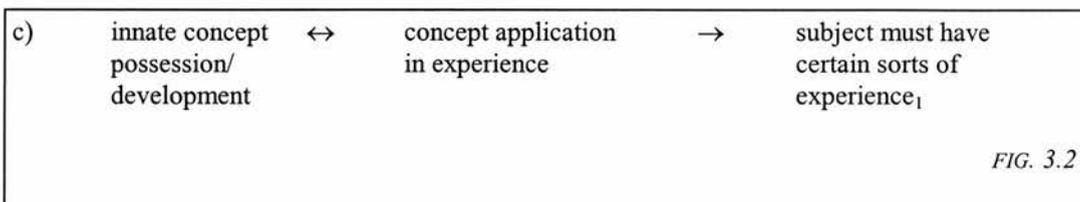
Another way of putting these claims would be to draw a distinction between employing a concept *immediately* in experience and employing *derivatively*. Cases of derivative concept application would be cases in which the subject was not at that time undergoing experience which was sufficient to meet the application criteria of the concept in question. An example would be a blind man (who was once sighted) thinking about red pillar boxes and London buses. The other type of concept application would be cases in which the subject did at that time have the sort of experience that could support the application conditions of the concepts (a sighted man perceiving such things). The claims would then

²²⁴ What will count as a suitable form of active experience will turn in part upon what sorts of experience can have spatial content. A similar point holds for the mention of ‘suitable passive experience’ below. We can leave this issue aside for the moment.

²²⁵ One reason for using suffixes rather than the terms ‘active experience’ and ‘passive experience’ is that we will be able to represent other transcendental arguments of this sort with this schema. The arguments of Strawson and Evans mentioned above might provide suitable candidates, for example.

be a) that one must have experience₁ in order to derivatively apply spatial concepts within experience, and b) that one must have had experience₂ in order to immediately apply spatial concepts within experience. It might initially appear that there is a significant difference between this case and that of secondary concepts, in that with the latter (for example colour concepts) it seems that once the relevant necessary experience₂ (visual experience) is lost, the subject can no longer apply the concepts within experience *at all* (i.e. neither immediately or derivatively—they can only be applied in thought), while this is not the case with spatial concepts. That is, it might appear that in the secondary concept case there is no distinction between experience₁ and experience₂. One either sees colours, or one does not. However, to hold this view would be to overlook certain unusual and non-standard cases such as eidetic memory, where one experiences sights, smells, etc., from one's past (particularly one's childhood) that appear to one as vividly as actual experience of one's present surroundings do. That is, such memories are supposedly as phenomenologically rich as present experience is. We can perfectly well imagine a blind man having such visual, experiential memory of the times before he lost his sight, and this would seem to provide a parallel to the spatial case. Dreams might also be thought to provide a parallel, as it would seem a safe assumption that the blind (particularly those who have just lost their sight) can still dream visually, as it were.²²⁶ The immediate–derivative concept application distinction will be relevant to considerations in the rest of this section.

The nativist about spatial concepts would deny the situation suggested in the above diagram. In particular, if he wished to argue against the present thesis (while acknowledging the application requirement) he might suggest this picture:



²²⁶ This will turn upon the account which one wishes to give of dreaming (see Stevenson (1995), pp. 186-8 for the beginnings of an account of dreaming that would deny such a parallel by arguing that dreams are not experiential).

Here experience₁ still represents suitable forms of passive experience. There would be no need for another level of explanation concerning concept acquisition and active experience. The fact that spatial concepts can be deployed in purely passive experience (as readily acknowledged above) would be enough for the nativist to use experience₁ in the diagram rather than experience₂.²²⁷ If the nativist's line is to be refuted it has to be shown that the other level is required—i.e. there is a role for active experience to play. This has to be done without denying the fact that the paralysed can have spatial experience. Given that the Weather Watchers₁ and the paralysed are in similar present circumstances, any difference in treatment will have to turn upon the fact that the two groups have different backgrounds.

I believe that it is possible to do just that. The problem for the Weather Watchers was that they were unable to bring the veridical–non-veridical distinction into play in passive experience. This difficulty cannot be overcome by asserting that the creatures possess the distinction innately, and are thus just disposed to apply it in experience upon having the appropriate forms of experience. There are two main reasons for this, and the first concerns the content of the distinction and the idea of innate concept possession (or the innate disposition to develop concepts). We can make sense of the idea that a creature might be disposed to develop certain colour concepts (for example) once it is able to have suitable visual experience, and we can understand what it would be for it to be disposed to see the world in terms of certain kinds of objects (middle sized, lasting, useful, crucial to its survival, etc.), because these concepts do not go beyond the merely phenomenological contents of the experiences in the former case (i.e. they can be fully characterized in terms of secondary qualities) and presuppose a more fundamental level of concepts in the latter (those concepts relating to a spatio-temporal, causal framework), but the concepts involved in the distinction that we are interested in are not of this sort. The veridical–non-

²²⁷ Were experience₂ to take the place of experience₁ in the diagram one would be in the position of denying that the fully paralysed can have spatial experience while agreeing with the central claim of the thesis, i.e. that active experience (experience₂) is required in order for one to possess and employ spatial concepts.

veridical distinction goes beyond mere appearances—how things seem to be in experience—to connect with the issue of the status of the appearances and tracts of experience themselves. It lies at the more fundamental level which the second case above presupposed. That is, the concepts involved here are experiential to the extent that they can be applied in experience to a certain degree ('that was not a veridical experience when you seemed to see the pink elephant!'), but are far more general and fundamental than other standard experiential (secondary) concepts such as those relating to visual experiences, sounds and sensations. It makes sense to suppose that a subject can be disposed to spontaneously develop these phenomenological types of concepts (and those concepts that presuppose a more basic framework), but it is hard to see what such a claim about the veridical–non-veridical distinction could amount to. At most the subject might be inclined to hold certain tracts of experience as more important than others (to pay more attention to them, or whatever) and develop some distinction along these lines, but this falls substantially short of what it would be to possess the distinction that we are interested in. For consider what a distinction based upon innate tendencies would amount to. Such a distinction would have to be based upon the creature's psychology (innate abilities do not 'reach out' and take in the state of external reality in the relevant way—instead, they concern the state of the *subject*), probably based in some way upon its goals and desires (no doubt connected to its long-term chances for survival). But such a distinction between tracts of experience ('ignore this one'–'this one is important') would be purely pragmatic, and relate to basic goals and desires of the creature, whereas we want a distinction that enters into the rational sphere and concerns the relationship between experience and the world, not between experience and one's goals or desires. In fact, it seems that the Weather Watchers would even be unable to develop any interesting distinction along these lines anyway, as the notion of a pragmatic distinction seems too closely connected to one's reasons for acting to be of any relevance to the case of the thoroughly passive Weather Watchers. They may have desires, but any attempt to arrive at a notion of a veridical–non-veridical distinction based upon one's desires is bound to result in a particularly useless form of coherentism.²²⁸

²²⁸ In that the obvious distinction to arrive at is what is desired–what is not desired, and any

The second reason relates to the application conditions of the distinction. Even if we set aside the above problems concerning the possibility of an innate disposition concerning the relevant concepts, the Weather Watchers would still be unable to bring the veridical–non-veridical distinction to bear in experience. This is because it would never have sufficient reason for holding that any particular episode of experience was veridical. Adding that the Watchers are innately inclined to apply this distinction does not entail that they *can* apply it; all their experience, as purely passive, would still retain equal status, in that no tracts of experience would have any intrinsic claim to a higher status of any sort. When presented with such a course of experience, the Weather Watcher would have simply no grounds for attributing more importance to certain parts than others, just as was the case originally. Experiences do not come with internal distinguishing marks by which we might judge them to be veridical or otherwise; we have to establish grounds upon which we can make a defeasible decision, as discussed above. However, the creatures lack any means by which they might arrive at some sort of standard by which they might attempt to judge particular experiences other than presupposing the case one way or another, and this is inadequate. They only ever have more passive experience. Episodes of apparently conflicting experience would have to be explained and accommodated by revisions in other beliefs, and this would have to be done according to some criteria which would have to remain arbitrary, based on some favoured form of coherence or other. And a distinction based upon such lines is not equivalent to the veridical–non-veridical distinction. In effect, the claim here is that part of what is involved in a full grasp of spatial concepts is a grasp of the veridical–non-veridical distinction, and that this cannot be non-derivatively applied in purely passive experience. Grasp of this distinction cannot therefore be innate for the Weather Watcher as it cannot meet the application requirement. Adding a claim to such effect does nothing to address the argument of §3.6.

Our paralysed subject does not fall foul of these problems. This is because (as stipulated earlier) there was a time in his life before he became

attempt to have this as a substitute for the veridical–non-veridical distinction is going to leave one with a ‘world’ only containing that which pleases one.

paralysed, during which he would have been able to both develop and employ the distinction. Although the subject will not now be able to employ the distinction immediately, and cannot employ his perceptual beliefs in future actions (the success of which might provide justification for his other perceptual beliefs), he can still make sense of the distinction and thus reach a decision on the matter, perhaps based upon whether or not the experience coheres with his pre-existing beliefs about the world (he can, that is, employ the distinction derivatively). These beliefs can provide a standard not available to the Watchers because they are based upon more than just passive experience. For example, he can make sense of the idea that a red blob in his visual field is not actually an object in his immediate environment, but just an after-image of the light that was aimed at his eye moments before, because he has had experience of such things at a time when he was actually able to employ his perceptual beliefs in action (he could move his head, blink, etc., and thus discover that the blotch was not a physical object), a situation the Watchers never find themselves in.²²⁹ The judgements that he makes may be far less reliable than those that we (as active beings) would make in roughly similar situations, but nevertheless he is in a position to judge, and this is the key difference.

To summarize, the first argument claimed that the veridical–non-veridical distinction (and related concepts) was not the sort of thing that logically one could possess innately, as it went beyond the mere phenomenological facts about experience (contrast: colour concepts) and was not based upon the prior possession of certain fundamental concepts (contrast: different ways of regarding objects). The second argument suggests that the distinction’s application requirements cannot be met in a course of exclusively passive experience, due to the fact that the nativist’s Weather Watcher would never have any grounds for believing that any distinction it was employing was the correct one, whether it was innately disposed to employ it or not (this is basically to reiterate the main argument above).

²²⁹ Cf. Stevenson (1982), p. 68.

There is a potential confusion that might arise here. It might seem that the fact that the subject cannot distinguish between veridical and non-veridical experience cannot act as the basis of an argument to the effect that the subject does not possess the relevant concepts. Strong sceptical challenges would seem to pose exactly this problem in our own case, with the suggestion that we cannot distinguish between experience of the real world on the one hand and illusory experience of (e.g.) a computer-generated virtual world (in the case of ‘brain-in-a-vat’ forms of scepticism) on the other, for example. Here we have exactly the veridical–non-veridical problem ourselves. Any argument based upon the Watchers inability to make this distinction might also seem to suggest that *we* do not possess spatial concepts.

Such a line of thought would be incorrect, however. The crucial point is not that the Watchers cannot distinguish between veridical and non-veridical experience—it is rather that they could not even grasp this distinction in the first place. This clarification serves to give rise to an interesting consideration. We can understand the problem of external world scepticism because we have a grasp of this distinction. The Watchers do not, and thus could not grasp the sceptical problem at all. This suggests the somewhat paradoxical thought that it is because we have (or, at least, *have* had) grounds for holding we have veridical perception that we are susceptible to serious sceptical doubt. This seems to suggest that the possibility of scepticism is an inevitable consequence of veridical spatial experience (or, at least, relies upon the subject’s access to veridical perception). It is interesting to note in this context that one of the few widely accepted responses to brain-in-vat scepticism succeeds precisely because it relies upon a particular formulation of the problem that denies the subject any access to the actual world at all.²³⁰

Returning to the matter of the innateness objection, Galen Strawson makes certain strong comments during his elucidation of this objection that seem to cast doubt upon the usefulness of any thought experiment that is intended to

²³⁰ This is, of course, Hilary Putnam’s proof (Putnam (1981), Ch. 1, pp. 1-21). Crispin Wright provides an interesting and thorough discussion of this in Wright (1992).

demonstrate that subjects with certain types of experience could not possess certain concepts. He states,

The Kantian question, What are the conditions of the possibility of objective experience (i.e., experience that has, for the experiencer, the character of being experience of an objective order that exists independently of the experiencer's experiences)? is wrongly understood when it is taken as a question about what sort of experiential inputs a creature must be exposed to if it is to come to think of its experiences as experiences of an objective order of things. For the answer to this question will always be, It depends on the nature of the creature.²³¹

This is a surprising claim, in that it suggests that all transcendental arguments such as the above are invalid.²³² Yet Strawson seems to miss an important possibility: that the creature's experiential inputs must meet certain minimum requirements if it is to be experience of an objective reality—certain requirements that constitute “the lower limits of sense”.²³³ The specific details—how these requirements might be met given the creature's physical make-up—will depend upon the nature of the creature; nevertheless, the minimum requirements will still hold in all cases. And the above argument is an attempt to suggest one such requirement. To suggest that the entire practice of delimiting the bounds of sense in this way is mistaken is to dismiss much of the most important philosophical work in the analytic tradition, and to dispute the usefulness of a key sort of transcendental argument.

Galen Strawson's dismissal of such philosophical projects is reminiscent of P. F. Strawson's earlier attack upon transcendental psychology.²³⁴ It is as if Galen Strawson identifies the two different sorts of endeavour, and accepts the claim that transcendental psychology is worthless (or, even, counter-productive). Yet they clearly are distinct; and further, it is not even obvious that we should reject the latter, let alone the former as well.²³⁵ Certainly, Galen Strawson does nothing to show this.

²³¹ G. Strawson (1994), p. 262.

²³² It also suggests that P. F. Strawson's auditory world arguments, and Evans' development of these (P. F. Strawson (1959), Ch. 2; Evans (1980)), are equally misguided.

²³³ P. F. Strawson (1992), p. 57

²³⁴ Cf. P. F. Strawson (1966).

²³⁵ Particularly in light of recent work that aims to demonstrate the virtues of transcendental psychology. Cf. Kitcher (1990).

In the wider context of our discussion of Galen Strawson's claims concerning any proposed connection between conceptual spatial awareness and action, it is also interesting to note certain other comments which he makes. Despite his noted intuition to the contrary, he seems to give some ground to the idea that action is essential for conceptual spatial awareness. At one point in his discussion, he brings in what he calls 'the rooting story'.²³⁶ He states:

It may help to imagine that the Weather Watchers are members of a race whose natural course of development leads them from an active, mobile youth to a state of immobility, rooted to the ground, in which they retain basic sensory and intellectual capacities ... Their memory span is limited, and as time goes on, all their memories of their former capacity for action fade away.²³⁷

Any suggestion of weakening his stance is illusory, however, as Strawson does not incorporate this into the 'official' Weather Watcher story. Were he to do so, there would be no problem. As it is, he sees the rooting story simply as an aid to the imagination, stating that "it is not a covert concession that the existence of beings as complicated as the Weather Watchers is unintelligible without some reference to action or behaviour".²³⁸ This reluctance to acknowledge any place for action or behaviour seems to stem from a fear that to grant them such a place would be to give too much away to the neobehaviourist. I maintain that this is a mistake. There is no immediate connection between accepting that some form of activity is required here and an admission that some form of neobehaviourism must be correct. Hopefully the absence of any arguments based upon neobehaviourist principles here may go some way to demonstrating this point.

²³⁶ G. Strawson (1994), §9.2, p. 254.

²³⁷ *ibid.*, p. 254.

²³⁸ *ibid.*, p. 254.

Chapter Four:
**Non-Egocentric Frames & the Spatial World (2):
Oneself, One's Body & the Location of Sensation**

This chapter follows on from the previous one in attempting to show that all the various non-egocentric spatial frames of reference cannot act as fundamental frameworks.

Here we turn to those frameworks centred upon oneself

§4.1 Introduction: the state of play

The aim of the present chapter follows immediately from that of the last. There, we looked at two of the non-egocentric spatial frames of reference that a Weather Watcher might conceivably employ if it were able to think spatially, and found that it could employ neither of these (at least, in a non-derivative way). In this chapter, we will turn to the remaining frames of reference—those frames centred in some way upon the subject's own body—and see if it is possible that a Watcher might employ one as its fundamental framework. If it can be shown that this is not possible, then it will have been demonstrated that non-egocentric frames (frames with no necessary connection to action and active experience) cannot act as a subject's fundamental spatial framework. This will reinforce the thought that a subject must have active experience if it is to be able to possess and employ spatial concepts.

There are two other frames left that the Weather Watcher may be able to employ if it is to possess and utilize spatial concepts without relying upon active capacities, namely the two body-centred spatial frames of reference. Before looking at these individually it is worth making some preliminary remarks. Firstly, we should note that the difference between these frameworks turns upon an epistemic difference—a difference between two ways in which a subject might come to know one and the same object, her own body. Now, we should not be misled by the fact that the central, focal object is the same in both cases into

thinking that the frames are to all intents and purposes identical. Contrary to this, the difference enshrined in this distinction is the most fundamental and important out of all the distinctions that hold between the various frameworks, as we shall see below. This fact, and the fact that we can think about this object, and this object alone, in these two ways (that is, there is no parallel distinction to be made in the case of the loci of any of the above frameworks), reflects the fact that this particular object—the body—holds a position of unique importance for the subject. Our bodies play a role in providing for our spatial awareness that is unrivalled. They constitute one's presence in the objective order of things; they are the means through which one's will manifests itself in the objective world. Nevertheless, I want to claim that an awareness of oneself either from the inside or the outside (as it were) will still not be sufficient for allowing one to possess and employ spatial concepts. We will look at the case concerning external awareness of oneself first.

§4.2 *Body-centred frames from external self-awareness*

Recalling the discussion of such frameworks from §2.7.1, the idea was that a subject's perception of itself through some 'outer sense' such as vision might allow it to recognize its place in the spatial scheme of things and thus employ a suitable spatial framework based upon its own physical structure. The example used in Chapter Two concerned a cross-shaped creature with two pairs of eyes. These eyes were situated on a vertically-raised stalk at the opposite end of the crossbar from the other eye of the pair. Each eye faces its partner, and thus looks across the surface of the creature's body. The creature therefore has two pairs of eyes situated at right-angles to each other looking in upon itself. The shape of its body—in particular the cross shape of its torso—would seem to be the ideal shape upon which to base a spatial framework, providing as it does a natural \underline{x} and \underline{y} axis, with the vertical eye stalks allowing the establishment of a \underline{z} axis. In the case of the Weather Watchers (call these the Weather Watchers₃) it might seem that they could do this in the following way.

Imagine that the Watchers₃ are essentially long, thin cylinders standing upright with a set of four 'arms' extending horizontally at right angles to each

other near the top of the body (something like a thin cylindrical crucifix with an extra crossbar 90° to the existing one and at the same height). Now imagine that the creature has eyes at the end of each of these protrusions, and at the top of its body. All of these eyes face towards the *Watcher*₃'s centre. In this way it will be able to perceive all of its surfaces all of the time.²³⁹ It can also see the scenery beyond its torso and 'limbs'. From this, it might seem that it could construct a spatial framework based upon the perceived axes of its own body with which to reflect upon the wider spatial area seen beyond itself—particularly since the torso and crossbar seen from any one eye will appear as a cross, or as a set of axes already in place for the establishment of a framework (almost like the cross-hairs of a target). The perceived distance from the eye to the torso (the length of the 'limb') could even act as the basis for a metric for the *Watcher*₃, or as a z axis to accompany the x and y axes provided by the perceived cross-like structure of its body.

Centring a spatial framework upon one's own body via external self-awareness might seem to be a perfectly possible way for the *Weather Watcher*₃ to establish a fundamental framework. In particular, it might seem that it would avoid the problems concerning physical significance that faced the absolute and allocentric frames—after all, it is the creature's own body that is being used here, and what could have more physical significance than that?

The situation is not quite as straightforward as this (as might be expected). In particular, we cannot immediately grant the *Watcher*₃ awareness of its own body—that is, we cannot allow that it perceives its body as its own body. To do so simply would be to grant it spatial awareness, and we cannot do that. Rather, what it has to do is recognize that the structure of its experience (for its experience will be structured) is caused in part by its perceiving a physical object, and more, that this object is in fact itself.

How might it achieve this? The mere fact that it perceives structural similarities in the visual field of each of its eyes will not be enough for it to

²³⁹ Except, of course, the back of its eyes—but we cannot do that either.

establish that it is its own body that it is seeing. In fact, it seems unlikely that it will be able to come to understand that it is even a physical object that it sees. We can make an even stronger point: there is nothing new in this case that makes it immune to the arguments presented in the previous chapter. The argument in §3.5 suggested that it will be unable to employ the notion of an object, and therefore unable to recognize itself as a perceived object, even one which dominates the visual field(s); the argument in §3.6 suggested that it would be unable to arrive at a grasp of veridicality. The extra structure within the experience makes no substantial difference. To paraphrase Searle's famous maxim, structure does not give us a spatial semantics. Whether one accepts this will turn upon whether one accepts the earlier arguments, and it is not worthwhile repeating them here. Instead, I want to leave body-centred frameworks that are based upon external self-awareness aside, and turn to their more interesting relatives, the body-centred frameworks based upon *internal* self-awareness.

§4.3 *Body-centred frames from internal self-awareness*

In this section I want to look at the one option that appears radically different in nature from those discussed in the previous section and the preceding chapter. Even though, as noted above, a spatial frame of reference centred upon oneself that is based upon one's internal self-awareness differs from the previous framework only in the epistemic source of the awareness—the route by which one gains an awareness of oneself—it still presents a radically different approach to the matter at hand and, it may seem, a far more plausible one. Rather than presenting a scenario for the Weather Watchers in this case, I want to focus upon the spatial content of sensation and consider, should there be such a content, whether or not this might provide suitable resources for the establishment of a spatial frame of reference. As we shall see, this would seem to be so according to certain influential theories.

I want, then, to look at some of the various different positions that have been held concerning the spatial content of sensation. To what extent does one experience sensations as at locations in physical space? By taking this approach I am not saying that sensation is the only way one might gain 'internal' knowledge

of oneself; such a claim would turn upon an assumption that we should treat proprioception, kinaesthesia, and one's sense of balance, which might all seem to give one such awareness, as forms of sensation, a claim which is not universally accepted. However, focusing upon the important debate concerning the location and spatial content of sensation provides us with a clear, established framework for the present discussion while avoiding certain contentious, important but ultimately irrelevant issues, such as whether proprioception should be treated as a form of perception or not. We can also bring considerations relating to proprioception, etc., in as and when required.

It might be thought that the arguments given in Chapter Three also serve to rule out any possibility that internal awareness could lead to spatial awareness, just as they do with external awareness. However, the situation is not as straightforward as this might suggest. This is because, following Strawson, we might wish to grant the Watchers sensations. Now, there are a variety of accounts of sensations on offer, some of which suggest that sensations have physical (objective) spatial content. If it were to be shown that such accounts were the only plausible accounts of sensation, then we would have a strong *prima facie* clash of intuitions, which might seem to weaken the earlier arguments. For such reasons we have to look at sensations and try to see if there is an alternative to such an account of the spatial content of sensation. Let us turn, then, to the matter of sensation: could a Weather Watcher₄ base a spatial framework upon the spatial (or otherwise) content of sensation?

§4.3.1 Sensations and spatial content: more than a feeling?

There are several key positions that have been taken with regard to the spatial content of sensations. Obviously, only those theories that propose that sensations have spatial content would appear to pose problems for the current thesis. It is unfortunate, then, that these are the only theories that seem in any way plausible. Let us look at the different options.

When, after overexerting oneself, one feels a stitch in one's side—a sharp pain under the ribs on one's left side, for example—it seems to one that the pain is located at that place on the body (that is where the pain is felt to be). Now, for

various familiar reasons (phantom limbs, referred pain, the straightforward physiological facts of the matter) it seems incorrect to say that the *pain*—the mental item, the sensation—is actually located at that point on the body.

Nevertheless, it seems that it is there. The question then arises: how does the sensation appear to have this location?

Several answers are available here. Some important ones are:

1. Sensations (such as pains) have no intrinsic spatial content; rather, they become associated through experience with parts of the body. (Thomas Reid and William James are two of the most well-known advocates of such a view.)²⁴⁰
2. Two related approaches which we can consider together:
 - i) Sensations have no intrinsic spatial content, but are accompanied by a basic disposition to act in certain ways towards specific parts of the body. (Anscombe has advocated this approach.)²⁴¹
 - ii) Sensations have no intrinsic spatial content, but are accompanied by an epistemologically immediate belief concerning the location of the cause of the pain. (Discussed by Armstrong.)²⁴²
3. Sensations come to one as located in physical, objective (absolute) space. (Wittgenstein appeared somewhat sympathetic to this line for a period.)²⁴³
4. Sensations come to one as located in bodily space (W. J. Holly as argued to this effect.)²⁴⁴ Another influential position arises as a development of such a view:

²⁴⁰ Reid (1895); James (1890), esp. Ch. 20.

²⁴¹ Anscombe (1962).

²⁴² Armstrong (1962), pp. 87-9. I think we need a distinction here between 2.i) and 2.ii) for the following reason. Even though Anscombe wishes to claim that in the case of proprioception—the knowledge or awareness of the posture of one’s body—we have an immediate belief concerning bodily posture (accompanied by no qualitative sensation, it should be added) (cf. Anscombe (1962)) this does not seem to be the case in her treatment of sensation (which she distinguishes from the data of proprioception). This turns upon the subject having an immediate disposition to act, rather than an immediate belief. There remains open the possibility that one might wish to treat sensations in the way in which Anscombe deals with proprioception (without, presumably, the accompanying rejection of a qualitative sensational component). This seems to be in the spirit of J. J. C. Smart’s suggestion to Armstrong, as reported by the latter (Armstrong (1962), pp. 87-8). Nevertheless, we will not need to separate these options in the following, as dispositions to act have no place in the mental lives of the Weather Watchers.

²⁴³ Wittgenstein (1958), pp. 49 ff.

²⁴⁴ Holly (1986).

5. Sensations come to one as located in bodily space by virtue of the fact that they are located within one's boundaries with an external, spatial world. (Brian O'Shaughnessy, Michael Martin, Bill Brewer.)²⁴⁵

Obviously, this list is far from complete. It does, however, represent some of the more influential approaches that hold some relevance for the current project. One type of approach notably absent from the above is that whereby sensations are treated as having representative or conceptual content (Armstrong's view under which sensations such as pains are actually relational, holding between a sense-impression of a bodily state and an attitude towards this state, would fall into this category, as might Michael Tye's view that pains have representational content).²⁴⁶ The reason why this sort of approach is omitted is that the conceptual component implicit in the approach presumably presupposes the possession of spatial concepts—if the content (say in the case of a pain) is *that there is some damage or impingement at this point on my body* then one must already be in possession of the concept *body* and all the other concepts that come hand-in-hand with this, including spatial concepts. Setting such theories aside, we are left with those of which the above are broadly representative.

One other reason why I have limited the discussion to the above alternatives is that the list contains that general account which is most plausible, independently of our current concerns, namely some variant of 4. or 5.—why I mention both will become clearer below. In particular, I mention Brian O'Shaughnessy's account because it has influenced much important current work in this area, such as that by Martin and Brewer, and provides a good, detailed example of the fifth alternative above. Also, I wish to draw upon certain aspects of his account in the following chapter, where we will touch upon the situation of beings with agency—our own case, in other words. However, such a position as O'Shaughnessy's seems to pose serious problems for any putatively necessary connection between action and spatial thought, such as the one I wish to advocate. Even so, I think that we can accept certain of the key features of

²⁴⁵ O'Shaughnessy (1980) Chs. 6-8, esp. Ch. 7, and (1995); Martin (1993) and (1995); Brewer (1995).

²⁴⁶ Armstrong (1962); Tye (1995).

O'Shaughnessy's view with a minimum amount of revision. We will look at this after briefly considering some of the merits and failings of the other theories.

Of the above, 1. and 2. pose no threat to the current thesis. As mentioned, though, these are the weakest of the positions, and should therefore not be relied on in the present case. A theory is, after all, only as strong as its weakest link. Nevertheless, it is worth looking at these positions in order to understand the appeal of the alternatives, in particular those that pose a problem for the claim that I wish to advocate.

One important fact about sensations is that they *seem* to relate to particular points on the body. My right ear can be itchy, my throat tickly and my head sore. I can have (what appears to be) a highly localised pain two inches down from my left kneecap just to the left and below of that scar. Such sensations come to one as at more or less precise points on one's body. Or so it may seem. Various writers have wanted to deny that sensations have any intrinsic spatial content, and have attempted to explain the strong connection with bodily location in other ways. We need not go into the motivations behind such accounts—our present thesis would provide motivation enough for us.

According to 1. above, sensations have no spatial content whatsoever. 'That the injury is occurring at point p on the surface of the body' is not part of the intrinsic or phenomenological content of the pain in any way. The pain is pure sensation, pure mental item. Hence we have Thomas Reid: "when we consider the sensation of pain by itself, without any respect to its cause, we cannot say with propriety, that the toe is either the place or the subject of it".²⁴⁷ That is, the location of the cause of the pain is not part of the phenomenological character of the pain. Awareness of the location of the cause of the pain goes beyond the content of the sensation itself, according to Reid.

The main problem for such accounts is that they have to explain just how these (supposedly) intrinsically non-spatial qualia come to be associated with bodily, spatial locations. One suggestion is that we 'feel' the difference in the

²⁴⁷ Reid (1895), p. 320. Quoted in Lehrer (1989), p. 104.

qualities between types of pain and through experience learn to associate them with different parts of the body. Different quality, different location; same quality, same location. This sort of account is surely false, and suffers from several fatal problems. It is indeed true, as W. J. Holly puts it, “that pains must come in different flavours”.²⁴⁸ A sharp kick in the groin leads to a wholly different sort of pain from a jumped on toe. But a jumped on left big toe surely does not cause a different *sort* of pain from a jumped on right big toe. In fact, as Brewer notes, we can have pains that travel while remaining otherwise qualitatively stable (his example is of the burning sensation caused by a hot liquid as it travels down one’s throat).²⁴⁹ Pains may indeed come in different flavours, but they do not come in a number of flavours that corresponds (even nearly) to the different number of possible pain locations. If they did, and if we had to learn to associate pains with locations through experience, think of the number of lessons in pain location that we would have to have! Given that we are not all masters of our memories and that they can fail us on occasion, we could (on this view) sit for hours trying to recall what part of the body *that* sort of pain should be identified with. D. M. Taylor suggested in defence of this view that one might figure out where a pain should be associated with by comparing its qualities to those pains whose associations we know, as if pains were like colour swatches, to be mapped against a colour chart.²⁵⁰ It is, as Holly notes, “devotion to theory, not experience, [that] forces us to claim such qualitative differences”.²⁵¹

There are numerous other problems with such an account, but we need not spend time on them here.²⁵² One way to avoid the problems facing the associationist account while still denying the link between sensation and spatial

²⁴⁸ Holly (1986), p. 351.

²⁴⁹ Brewer (1995), p. 298. This point also suggests another line of criticism that is worth mentioning even though I will not follow up on it. Evans criticizes Strawson’s ‘auditory world’ thought experiment because of the role that he ascribes to a master-sound. According to Evans, this wrecks the spatial analogy that Strawson wants. Likewise, it might be claimed that focusing upon qualitative differences will miss the essentially *spatial* nature of the relationships between sensations. See Strawson (1959), Chapter Two and Evans (1980), pp. 79-83.

²⁵⁰ Taylor (1965), discussed in Holly (1986), p. 350.

²⁵¹ Holly (1986), p. 350.

²⁵² Cf., for example, Holly (1986), pp. 348-51; Martin (1993), p. 208; Brewer (1995), pp. 298-9; Armstrong (1962), Ch. 12, pp. 81-9; O’Shaughnessy (1980), vol. 1, p. 212.

location would be to reject it in favour of either 2.i) or 2.ii) above.

Unfortunately, such theories do not fare substantially better. The general idea lying behind these approaches is to take the problem of association out of the hands of the subject and place them in the trusted care of brute inclination (to act or to believe). In this way the subject need not learn any associations at all—she just finds herself with them in the form of inclinations.

Such theories suffer from serious problems. Postulating a pure, non-spatial quale accompanied by an immediate inclination to form a belief concerning the location of the cause of the pain or to behave in a certain manner as an explanation of the spatial features of bodily sensation seems to miss the mark in at least a couple of important respects. As Michael Martin notes, this approach fails to sufficiently deal with the issue of the connections that hold between the sensations we experience and our attitudes towards them.

[A]n adequate account of visual experience must explain how the experience matches the action, such that that action appears appropriate to how things look to one. The same rationale applies to bodily sensation. ... The sensation not only causes behaviour, but appears to rationalize it. An appeal on Anscombe's part to no more than brute dispositions would fail to accommodate that point.²⁵³

The idea is that we can draw a distinction between reflex and conditioned actions on the one hand, and standard, free bodily action on the other (roughly corresponding to the distinction between B3 and B1+B2 respectively in §1.2.1 above). An account along the lines of that offered by Anscombe only seems appropriate to the former (B3-type involuntary movements); it cannot offer the rational explanations that we require in the case of the latter (B1- and B2-type free actions). In other words, it fails to accommodate the relationship that one finds between intentional action and rational thought in the case of creatures with conceptual capacities. The sort of picture given in Anscombe's account may be suitable for animals with no use for notions such as 'justification' or 'reason for acting', but it is not suitable for any concept-using being.

In effect, this echoes John McDowell's line against neo-Kantian theories of experience that postulate a nonconceptual 'Given' as an element in experience,

²⁵³ Martin (1993), p. 208.

and a similar point can be made against the related idea that an immediate disposition to believe that the cause of the pain is located *here* accompanies a pure sensation (McDowell's own discussion is more relevant to this new case).²⁵⁴ The argument that McDowell offers against the idea that experience contains an intrinsically nonconceptual component is that this would deny it any justificatory role whatsoever. The 'Given' would provide one with "exculpations where we wanted justifications"²⁵⁵—we cannot be blamed for our conceptual activities, but equally we cannot justify them by appeal to something outwith the conceptual domain, as reason is already intrinsically conceptual. Whether or not McDowell is correct to criticize neo-Kantian theories in such a way is not our concern—it is the appropriateness of such a line of attack to the present case that is relevant.

The McDowell-type point, when directed against 2.ii), amounts to the idea that one should be able to justify one's beliefs about the spatial locations of (the causes of) sensations.²⁵⁶ When asked why one is scratching one's back, one would normally reply that that is where the itch is. When pressed on this matter—how do you *know* that the itch is there?—one wants to be able to do more than state that that is where you believe it to be, which is all one could do on this picture. To paraphrase McDowell, one wants to use the sensation as a reason for one's belief, and not merely an excuse for it. Instead, we feel that we should be able to say that one can *feel* the itch *at that point*—it is not merely that one believes the cause to lie there, but rather one can feel that it is there. The spatial location is part of the content of the sensation, not just something that comes to one separately from the sensation.

Another reason for rejecting 2.i) and 2.ii) in the present context is that the former would seem to rule out the apparent possibility that creatures such as the

²⁵⁴ McDowell (1994b), esp. Lecture I.

²⁵⁵ McDowell (1994b), p. 8.

²⁵⁶ The brackets indicate that there are in fact two ways in which one might connect sensations to locations under such a theory. One might say that the pure sensation comes with a belief about the location of the cause; or one might alternatively say that the sensation comes with a belief that attributes a location to the sensation itself. Of course, one would have to take an error-theoretic approach to the latter if one wanted to claim that sensations were purely mental items with no spatial content or location, and claim instead that it is the cause that might have location, but nevertheless the position remains open. We do not need to distinguish such views in the course of the present discussion.

Weather Watchers could have sensations at all. As discussed in Chapter One, these beings are not even disposed to act in any way whatsoever.²⁵⁷ To advocate a theory that draws such a strong connection between sensation and action would be to rule out interesting cases like this far too quickly. In any case, Galen Strawson's attempt to separate sensation from behavioural considerations has some intuitive appeal—it is only his claim that purely passive creatures could entertain spatial thoughts that I wish to dispute. In a similar vein, the latter of the two approaches would seem to pose problems for the possibility of non-concept users (such as animals on some accounts) having sensations that have spatial content. Yet surely even such a creature could feel a pain at a certain point on its body, even if it could not form a belief to this effect.²⁵⁸

These considerations alone may not be enough to defeat these sorts of theories outright, but they are enough to suggest that we should explore other alternatives. In particular, it does just seem to us that sensations have locations, that they have some spatial content. A pain in the hand feels to be in the hand. In light of this fact, the suggestion that internal self-awareness might be used to found a spatial frame of reference seems more plausible. And if this is indeed possible, then action need have no fundamental, necessary place within the mental life of a creature in possession of spatial concepts.

The position numbered 3. above is the one that presents the most serious problems for the proposed connection between agency and spatial awareness. A theory of this sort would claim that a sensation has a location in physical space in a way that does not depend upon its occurrence in conjunction with any other sort of object, such as the body of a conscious subject. To take such a line, then, would be to hold that the experienced location of the sensation is part of the content of the sensation itself. It is to hold that pains and other sensations “have spatial locations of their own just as splinters and marbles do”.²⁵⁹ A pain in the toe is literally located in the toe—it has the same spatial co-ordinates as (a part of) the toe. As a matter of fact, under this particular approach the bodily location

²⁵⁷ See the quotation from Galen Strawson that opens §1.1.

²⁵⁸ Interestingly, McDowell himself runs into this problem (cf. McDowell (1994b), esp. Lectures I and VI).

of the sensation is secondary to the objectively spatial location of the sensation. The sensation comes as at a part of one's body only to the extent that one's body seems to occupy the same point in space that the sensation comes to one as at. It might initially seem that this position is actually the only alternative to the outright rejection of spatial content in sensation found in 1. and 2. Either sensations have a location in absolute space or they do not. If one believes this, one might find oneself inclined to be sympathetic to the current option, due to the counter-intuitive aspects of 1. and 2. just mentioned. As we shall see in a moment, there is no such strict dichotomy. Still, 3. is an approach that merits some attention, particularly in light of its challenge to the central thesis.

This does seem to have some intuitive force, in that it does capture some of our ordinary beliefs about the location of sensations. It is correct to the extent that we do experience sensations as located in parts of our body (other than the organ of thought, where they might otherwise be thought to be located), and that this involves their having determinate locations in physical space (as opposed to being located merely in bodily space). When a person burns her finger and quickly places it in cold water, she would not be normally inclined to say that she was trying to stop or deal with the *cause of the pain*, and indirectly stop the sensation of pain this way; in actual fact, she would be far more likely to say that she was trying to stop *the pain itself*, and that she was holding her finger in cold water because that was where it hurt and, as O'Shaughnessy notes, “‘the place of the pain’ and ‘the part of the body that hurts’, are logically equivalent”²⁶⁰—her finger is where the pain was, and her finger has a location in physical space. The present theory attempts to accommodate this fact by allowing that pains do have actual locations.

Nevertheless, this approach has serious problems of its own, ones that did not trouble 1. and 2. above. The main problem comes because the present suggestion does not allow for the strong connection between the location of a pain and the present position of one's body. In particular, it says nothing to the effect that the sensation must be felt as being located within one's body which,

²⁵⁹ Holly (1986), p. 343.

²⁶⁰ O'Shaughnessy (1980), vol. 1, p. 177.

when suitably interpreted, is surely a necessary requirement for any sensation. This point needs some clarification, as there are at least two ways in which it can be read.²⁶¹ One way, which seems open to empirical falsification, is to read it as claiming that all sensations will fall within the body of the subject. While this might be true in the standard case, it is obviously not true in cases involving phantom limb experiences. In such an instance, the pain seems to the subject to fall outwith the limits of his actual body, in the (empty) space beyond his stump where his (e.g.) leg would have been had he not lost it.

The position currently under discussion can accommodate such facts—phantom limb pain does, after all, come to one as at a real, spatial location, just one that happens to be outwith one's bodily limits. However, what makes the phantom limb case as interesting and unusual as it undoubtedly is is the fact that it is a thoroughly non-standard case. One does not normally experience sensations as lying beyond one's physical limits. In fact, in such cases as this, the pain *does* come to one as being within one's body, albeit a part of it that no longer exists. Even in cases where one seems to have a sensation in a tool that one is using—a surgeon might seem to 'feel' the tip of the scalpel as it slices into the skin—the way to explain this is surely by saying that the tool in question appears to the subject to become part of his or her body. The tool takes on this appearance by virtue of the subject's familiarity with it and the ease and skill with which he or she wields it. Just as one does not have to *try* to move one's arms (in the standard case of a fit, normal person) the skilled craftsman does not have to *try* to use his knife. The idea here is that all sensations appear to one to come within one's body due to some interdependency holding between one's conception of one's physical limits and the space in which one experiences/can experience sensations. One can only make sense of the idea of having a sensation at a point *p* if one conceives oneself to contain *p* (with the possibility of error always present). Thus when one experiences a sensation at a point which one would normally say is not part of oneself it seems to one in sensation (it *feels* to one) as if one does extend to this point, even if one can see that one does not.

²⁶¹ As Michael Martin notes. See Martin (1993), pp. 210-1.

This is the correct way to read the above requirement.²⁶² We will return to the matter of how we should account for this fact in a moment.

First, it is worth noting that a straightforward rejection of such a thought seems to underlie some of Wittgenstein's comments in the *Blue Book*, suggesting that at that time he might well have advocated a position similar to 3. He states that "An innumerable number of cases can be thought of in which we should say that someone has pains in another person's body; or, say, in a piece of furniture, or in any empty spot".²⁶³ If this were indeed so, then the third sort of theory above would undoubtedly be correct. However, I am rather more inclined to agree with those who would reject Wittgenstein's claim. What would it mean to say that a pain or a tickle was located one metre above the ground in an empty room? I do not think that we could make sense of someone who professed to feel a pain but when asked where it was replied, "it's in the centre of my kitchen on the table". Or could it be that one felt a warm sensation within a stone, without it seeming that the stone is somehow part of one? This is not, it is worth adding the point that Wittgenstein makes in his *Philosophical Investigations* when he writes, "Look at a stone and imagine it having sensations.—One says to oneself: How could one so much as get the idea of ascribing a *sensation* to a *thing*? One might as well ascribe it to a number!"²⁶⁴ We are not questioning whether an inanimate object could experience sensations (to reject this would be to provide reasons for denying the possibility of the Weather Watcher thought experiment independent of any considerations concerning spatial concept possession—see the discussion of Anscombe's view above); we are questioning whether a subject could experience a sensation that had a felt location that came to one as being outwith one's own body, such as experiencing a pain as located in another room, or feeling a tickle two metres behind one's back (but not in a way in which it seemed to one as if one extended two metres backward—as if one had a tail, for example).

²⁶² Cf. Martin (1993), and for a defence of this claim see Martin (1995).

²⁶³ Wittgenstein (1958), pp. 50-1. Holly also notes this passage in the 'Blue Book' (cf. Holly (1986), pp. 353-4).

²⁶⁴ Wittgenstein (1953), §. 284.

What distinguishes such (inconceivable) cases as these from the phantom limb case is the fact that in the latter the subject experiences the sensation as occurring within a part of his body. The pain is felt as being within the body—it is just that the body part in question is hallucinatory. If we accept that all sensations must appear to the subject as falling within the boundaries of her body (in the sense that the body seems to expand to accommodate these non-standard sensations), then the third option above fails due to the fact that it omits any requirement concerning the body in its account of the spatial aspects of sensational experience. On this account (as far as it goes) there would seem to be nothing to suggest that cases of non-bodily sensation could not occur. And this seems wrong—we want to rule out such impossible cases. The spatial view must, then, be able to acknowledge and explain the fact that all sensations seem to the subject to be located within her body. How might one try to go about saving this view?

One way, discussed by Martin, might be to say that as a matter of fact all sensations have some quality through which they appear to one as located within one's body (such a view might be thought of as a compromise between the association view and the spatial view).²⁶⁵ A feeling of pain—which comes with a felt location—feels to be within one's body because it has a particular quality to it, a "positive quality of feeling to be within one's body".²⁶⁶ But such a quality cannot play the required role, "[f]or if a sensation is only felt to be internal to the body because it has some positive quality, then it should be conceivable that the sensation might lack that quality and thereby fail to be felt as internal to one's body".²⁶⁷ A non-intrinsic feature, such as a certain quality or other, cannot account for the fact that all sensations must necessarily appear to one as lying within one's boundaries (on pain of conceptual incoherence), as it will always leave open the possibility that certain sensations will lack this extrinsic feature.²⁶⁸

²⁶⁵ Martin (1993), p. 212.

²⁶⁶ *ibid.*, p. 212.

²⁶⁷ *ibid.*, p. 212.

²⁶⁸ Martin, in both Martin (1992) and (1995), notes that all sensations seem to come with the quality of 'a sense of ownership'. This would seem to pose problems for his agreement with O'Shaughnessy's account for the reasons discussed in the text. However, Martin's explanation of the origin of this sense of ownership and the involvement of the spatial content of bodily sensation allow him to acknowledge that all sensations do have this quality while claiming that it is

Given this, one must look for an alternative approach that can accommodate the fact that pains are necessarily perceived as existing within the subject's body, i.e. a theory that posits an intrinsic connection between the location of sensation and the subject's body.

Brian O'Shaughnessy's account of the place of sensation (5. above) fits the bill here.²⁶⁹ His account attempts to acknowledge this important fact concerning the location of sensation and the body. I should also add that there is no real need to look at the fourth option above at this point, as Holly's account is not specific enough at this point to add much to the debate (other than a rejection of the earlier theories); also, O'Shaughnessy's account is broadly along the lines advocated by Holly, inasmuch as it makes important use of the idea of a 'bodily space'—central to Holly's suggestion—as we will see in the following section (§4.3.2). I will have something more to say about 4. shortly, but we need to look at 5. first in order to grasp what is involved in the distinction between the two positions—i.e. what room there is for 4. as distinct from 5. Of course, not all accounts that would fall under 5. will be based upon—or even in agreement with—O'Shaughnessy's position, and we will need to look at the wider aspects of 5. We will, however, focus upon O'Shaughnessy, due to the fact that he provides us with the most detailed account of a theory that falls under 5. will give us some idea of the general shape of other possible positions that one might wish to take in this area.

Turning back to O'Shaughnessy then, his theory is rather complex, and I want to approach it by following his discussion of the alternatives that he rejects. In this way we can get a clearer picture of the conceptual terrain within which he locates it. He lists these, all of which he claims do have some intuitively correct aspects, in the following manner:

by 'the sensation is at p' we do not mean: it is at p relative to the fixed stars.

We do not mean: the cause is at p.

We do not mean: it seems to me to lie in that (p-) part of physical

inconceivable that they should lack it. See the following section for further discussion. 'Alien limb' cases also seem to offer support for the idea that there is such a thing as a sense of ownership in standard sensation (cf. Tye (1995), pp. 33-5).

²⁶⁹ Cf. O'Shaughnessy (1980), esp. Chs. 6 and 7.

space.

We do not mean: it seems to me to lie in that part of my body.

We do not mean: it seems to me to lie in that part of my body and that part is here and now a real part of my body.

We do not mean: it is surrounded by sensations which are all in the neighbourhood of p. ...

We do not mean: it is seemingly surrounded by sensations which are all seemingly in the neighbourhood of p.

And we do not mean any combination of the above.²⁷⁰

We can number these 1 to 7 (we need not number the final option concerning combinations). The first amounts to a rejection of the suggestion that sensations are located absolutely, as Wittgenstein's comments above might suggest. We can treat the second as aimed at theories similar to 2.ii) above (and also as accommodating phenomena such as referred pains). The third seems to be intended as a rejection of those views that suggest that sensations are located in space and assume (or posit) some non-intrinsic connection to the body, such as the approach dismissed by Martin above (O'Shaughnessy is not explicit here, but the reference to physical space supports such a reading).²⁷¹ The next position that O'Shaughnessy discards (which we have not yet discussed) seems more plausible. When I say that the pain is in my right leg it seems perfectly plausible to read this as meaning that the pain seems to me to be in my right leg. Can there be more to the position of the pain than where it seems to the subject to be located?

O'Shaughnessy highlights two reasons for giving a positive answer. The first relates to sensations with which we find it hard to specify their location. An itch on the back, for example, can seem at first to be located at one point yet when one goes to scratch it one realizes that it is actually slightly over to the right—that is, the true location of the itch is not where it seems to be to the subject. The itch had always been there; the subject just had problems specifying so. The second and more compelling reason comes through the phantom limb phenomenon. One can seem to have a pain in one's right leg even when one no longer *has* a right leg. So the location of the pain cannot just be where it seems

²⁷⁰ *ibid.*, vol. 1, p. 185.

²⁷¹ It also relates to certain extremely non-standard cases involving replaced phantom limbs that we need not go over here (cf. O'Shaughnessy (1980), vol. 1, pp. 184-5).

to the subject to be. It is worth reminding ourselves that we cannot translate ‘feeling a pain in one’s non-existent right leg’ into ‘feeling a pain at the spatial location where one’s right would have been’—if we could, a proponent of this view could claim that the location of the pain *was* where it seemed to the subject to be, and it just happened that he had no body part there. As noted above, we cannot make sense of the latter phrase except as in terms of the former, and therefore such a move cannot help this account.

The next (fifth) alternative arises as a modification of this account intended to deal with such counter-examples, and to prevent a gap opening up between the seeming location of the sensation and the actual location. Such a motivation explains the reference to a presently existing body. However, O’Shaughnessy presents counter-examples to this approach as well. The above sorts of mistake become somewhat minor in comparison to the radical types of error that he goes on to consider (inasmuch as phantom limb experiences could ever be labelled ‘minor’).

Suppose we drape a man’s neurologically attached hand-skin over his foot, and stick a pin into it; whereupon its owner would surely believe, not merely that he felt a pain on his hand’s skin, but also *in his hand*. But he undoubtedly felt a pain on his *hand’s skin*, and that is not where his hand is. ... Therefore he did not feel a pain in his hand.²⁷²

There is no element of hallucination in this case, as there is in that of the phantom limb. All of the subject’s parts are there, still attached to his body (although in a rather non-standard way). Nevertheless, the sensation is not where the subject feels it to be, and this is enough to suggest that this kind of account is insufficient. Such an example also holds against the sixth suggestion, in that it would seem to the subject that the pain was spatially located near to the dull, arthritic ache in the wrist, whereas this would not in fact be the case here. To opt for the final suggestion would be to hold that the place of the sensation is actually within an internalised representation of the body, comprised of ‘seemings’ which need not actually correspond to the structure of one’s body in any way. It would be as if one could have a ‘mental body’ through the deliverances of sensation that would act as the home for these sensations, with no necessary connection to

²⁷² O’Shaughnessy (1980), vol. 1, p. 184.

one's actual, physical body at all. To hold such a picture would be to hold a sense-data theory of bodily sense, whereby one loses all immediate contact with one's own body. We need not go into O'Shaughnessy's reasons for rejecting this picture, as they are rather complex and tie into his wider theory concerning the will and body sense; we can, however, still see how deeply unintuitive an account this would be.²⁷³ Also, it would seem that the example above (of the partially skinned man) would pose problems for even this sort of account.

§4.3.2 O'Shaughnessy's view: projection & the body image

The view developed by O'Shaughnessy and broadly advocated by Martin and Brewer arises through the rejection of these alternatives. On this account the experienced location of a sensation is a determinate place within one's body *in physical space*, as one has a sense of this body. As O'Shaughnessy puts it, "the immediate *sensuous* 'given' was, sensation-at-a-part-of-the-body-at-a-point-in-body-relative-space".²⁷⁴ Martin makes the same claim by stating "one feels one's sensations to be internal to one's body [and that this] might also be seen as one feeling's one's sensations to be located within one's boundaries"—boundaries with an external space into which one's body extends.²⁷⁵ Bodily spatial location—having the sensation come to one as being within one's body—*and* physical spatial location—having the sensation appear to one as having a location in external, objective space—are intrinsic to sensation, even those sensations which fail to pick out an actual part of the body.²⁷⁶ While the sense field view of body sense is rejected (it is the seventh position in O'Shaughnessy's list), he does believe that something along these lines is required, to the extent that one must have some sense of the structure of one's own body, particularly in relation to the fact that this gives all possible locations of sensation. His view is that one's sense of one's own body and the felt location of sensation are interdependent: "bodily sensations cause an awareness of themselves *as* set in a specific position in a determinately postured limb, and simultaneously those same sensations cause awareness of the very limb, and *as* determinately postured, in which they

²⁷³ Holly also specifically rejects such an approach.

²⁷⁴ O'Shaughnessy (1980), vol. 1, pp. 229-30.

²⁷⁵ Martin (1993), p. 212.

²⁷⁶ Cf. O'Shaughnessy (1980), vol. 1, pp. 185-6 for his discussion of this claim.

themselves come as seemingly set”, as he puts it.²⁷⁷ We cannot grasp the structure and posture of our bodies if we do not have some immediate awareness of the body, and this awareness can only come through sensation (construed as having spatial content). Likewise, we cannot make sense of the idea that a sensation could have a location except to the extent that the sensation must be of (and seemingly in) one’s body, of which one must have some comprehension.²⁷⁸

In this section I want to discuss this account in some detail and attempt to show why one might believe that it can deal with the problems that earlier accounts (rejected above) faced. I then want to go on and look at why this theory might seem to pose problems for the current thesis, and suggest that this is due to an inessential aspect of the account (although one that was essential to O’Shaughnessy’s original purpose) that we can revise while still retaining the more appealing aspects of the account. Let us return, then, to O’Shaughnessy’s theory.

The alternative that he offers to those rejected suggestions comprising the above list is that “when sensations have a location they can only be set in actual or prosthetic limbs that are part of a body that is internalised in the body image”.²⁷⁹ Sensations only have a bodily location through a successful ‘projection’, which proceeds via the body image to the body itself; and all sensations come with an attempt at such a successful projection (this is why all sensations *seem* to be of the body even when they are not, as with phantom limb sensation). The concept of *projection* is necessary to account for the fact that the seeming location of sensation may not be the actual location of the sensation (e.g. phantom limb sensation, referred sensations); and, more strongly, the seeming location of sensation in general *is not* the actual location of the sensation (the actual location is the brain—the organ of thought—according to O’Shaughnessy).

The need for some notion like that of projection is clear, particularly when considering the aforementioned examples and the fact (mentioned by

²⁷⁷ *ibid.*, vol. 1, p. 204.

²⁷⁸ The bracketed clause points to the fact that we can have phantom limb experiences, referred pains, etc., that appear to be in non-existent parts of the body (a missing leg, a tool); the important fact is that they come to one as being within one’s body.

O'Shaughnessy) that it is entirely possible, given the physical construction of the body and the functioning of the central nervous system and brain, that (almost) any body part could be lost before the nerve impulses transmitting pain data from that part reached the brain—in other words, almost all pains could be felt after the loss of the damaged body part. Without a concept along these lines it might seem as if we could actually have sensations of places that we did not occupy, and this would sever the very link with the body that gives content to the notion of sensation. The need, however, for the notion of a *body image* is not quite as obvious. What does O'Shaughnessy mean by this term, and why is it required?

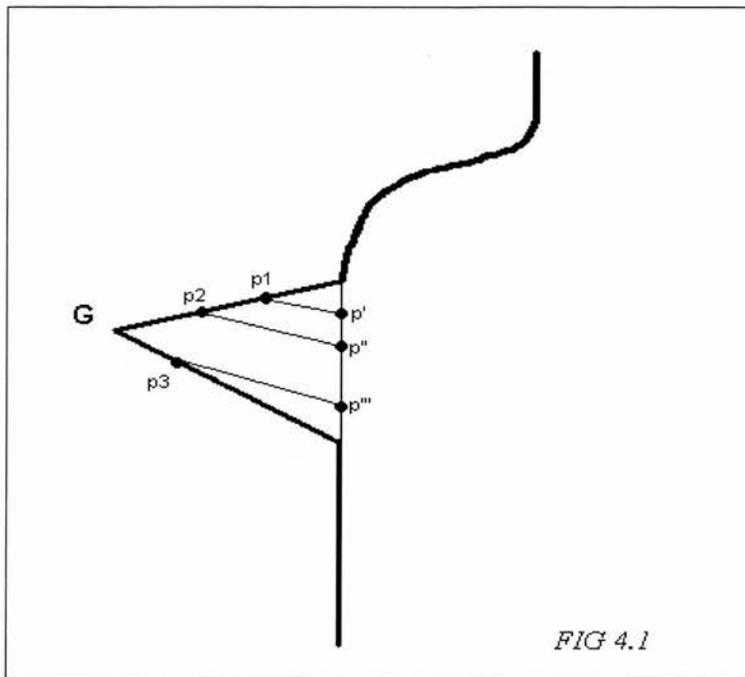
We can approach the former question in terms of the latter. In his first major treatment of the topic,²⁸⁰ O'Shaughnessy offers us three reasons why we need such a concept. The first concerns the practical uses for such a notion within human (and particularly infant) development. I will leave discussion of this aside, as it is not immediately relevant to our present purpose. The second concerns the connection with projection, and I want to look at this in some depth here. Finally, the third relates to the need for any animal that it should have a sense of itself as physically determinate. This concerns the role of the body image in action, and will be highly relevant in the following chapter, where we will return to it.

One reason as to why we need some notion of a body image comes out when we look at what is required by the phenomenon of projection, noted above. All projection (whether it be psychological, cinematic, vocal, or whatever else), as is suggested by the name, needs some receiver. In the present case, the obvious initial thought would be that this is the physical body itself. However, the above examples suggest that this cannot be so. How could we explain the various forms of error such as phantom limb sensation were this so? The following example of O'Shaughnessy's illustrates this.²⁸¹

²⁷⁹ O'Shaughnessy (1980), vol. 1, pp. 185-6.

²⁸⁰ *ibid.*, Ch. 7 (esp. §4 ff.).

²⁸¹ Taken from O'Shaughnessy (1980), vol. 1, pp. 237-9.



The area G in the diagram represents a graft located on a subject's shoulder. In the immediate term after the subject has the graft (and the graft is integrated into the subject's nervous system), we can question the extent to which the subject will be able to accommodate it into his image of himself—into, for example, his dispositions to act and his beliefs concerning the location of sensation. O'Shaughnessy's contention is that it is perfectly conceivable that the subject might initially feel a pin prick at p_1 as coming at p' (the seeming location of the pain would be at p'), and that this is compatible with the fact that when he prods his arm to establish exactly where it is he finds that it is at p_1 (just as one might run one's tongue over a row of teeth to locate precisely a toothache with an indeterminate spatial content). This points to the fact that there are actually two ways in which we might try to establish the location of a sensation: first, there is the location that is given in sensation itself; second, there is the 'tracing-neighbourhood test', as O'Shaughnessy calls it, whereby we run a finger (or hand, tongue, etc.) over the general area of the sensation to locate the place of the cause. Occasionally, the results of these tests can come apart, as in this case and also in those of referred pains and phantom limb sensation: one can seem to oneself to extend into parts of space where one does not (e.g. phantom limb cases); and conversely, one can seem to have no presence in a part of space

where one actually has (e.g. the present case, or alien limb cases).²⁸² The reason for this in the present case is that the subject's body image does not, at least initially, contain G. For this reason, G cannot act as the location of a sensation (in the first sense)—the brain cannot project a sensation onto a part of the body that is not contained within this schema. The idea is that in the standard case one would become familiar with the graft over a period of time (just as one might get used to having lost a hand or a leg) and as a result of this the graft would be integrated into the body image, and one would then start to feel pin pricks at p_1 as coming at p_1 rather than as at p' .

What this is supposed to show is that the intrinsic, phenomenological content of sensation is not enough to explain one's spatial awareness of oneself. There is a potential gap between the seeming spatial content of sensation and how one is actually disposed in physical space, as seen in the above example, and sensation alone will not even suffice to explain the former. It seems as if this content is not sufficient for giving us a grasp of our bodily structure and spatial layout—the above subject can, after all, feel equivalent sensations (same cause, same location of cause, same bodily structure) as coming at two different places on different occasions—firstly at p' , p'' , etc.—and then at locations in G (p_1 , p_2 , etc.), where the cause is actually located. Something else is required to explain this fact, and it is here that O'Shaughnessy finds space for the body image. As he puts it,

'How at instant t_I one seems to oneself to be disposed in spatial respects R in space' ... is to be causally explained by the joint operation of two causally potent factors. The first of these factors is something present and phenomenal that is causally sensitive to, and probably explained by, the spatial properties singled out in the perceptual experience; for example postural or kinaesthetic sensations ... The second causal factor is something that is singled out by a very different and quite special sense of 'How at instant t_I one seems to oneself to be disposed in spatial respects R_a in space'. A rough example of this kind of causal explanatory claim would be this: 'At instant t_I one seems to be aware of a flexed arm because in general ... one takes oneself to be a being endowed with an arm which can adopt postures ...; and because of the operation of postural sensations, etc.'²⁸³

²⁸² For discussion of 'alien limb' cases see Sachs (1984) and (1985), Ch. 4, and Tye (1995), pp. 33-5.

²⁸³ O'Shaughnessy (1995), pp. 183-4.

The first component is a phenomenological feature of sensation—let us call this the *pseudo-spatial* content of sensation. Calling it ‘spatial’ would seem incorrect on this approach, in that sensations only get true spatial content by virtue of the fact that they interact with the second component mentioned by O’Shaughnessy (the graft example is intended to illustrate that the first component alone is not sufficient). It is this second component that he terms the *body image*, or, more specifically, the *long-term body image*. It is a “hypothesis”, and should be understood as coming at the subpersonal or preconceptual level, and is *not* a necessary conceptual-level item constructed out of the individual’s beliefs concerning his physical structure and make-up.²⁸⁴ “The hypothesis is that if in general one took oneself to be (say) octopus-shaped instead, then despite having a human shape and despite the presence of posture-caused phenomena like sensations of posture, one could not have the experience of seeming to be in the presence of a flexed (very roughly) arm-shaped thing”.²⁸⁵ He does, however, think that once we are concerned with the phenomenon of bodily action the long-term body image becomes necessary.²⁸⁶ This conclusion fits with the context in which his first treatment of the topic arises, his two-volume essay on the will.

What this seems to leave us with is the empirical hypothesis that a creature must possess a subpersonal item that, in conjunction with the phenomenal content of bodily sensations, provides us with an awareness of the spatial location of those sensations. It also provides the creature with a sense (coming before the conceptual level, apparently) of its long-term general physical structure. If one imagines waking up one morning to find that one has undergone a strange metamorphosis into a large insect, as in Kafka’s story, one would initially find oneself initially at a loss as to how to control this new body, according to O’Shaughnessy’s theory. One would be unable to grasp the spatial

²⁸⁴ Cf. *ibid.*, §3, pp. 183-4, and §§. 4-5, esp. pp. 194-5. See Gallagher (1986) and (1995) for discussion of the various interpretations of the term ‘body image’ and the connected term ‘body schema’.

²⁸⁵ O’Shaughnessy (1995), p. 184.

²⁸⁶ *ibid.*, p. 199. There is an element of equivocation in O’Shaughnessy’s writings as to the status of the body image, particularly the long-term body image, in particular: whether it is hypothetical or a priori necessary; whether it is at the subpersonal or personal level; and whether it is at the

content of sensations, and unable to plan or engage in any bodily activity. This would be because one would lack a suitable body image to play a role in both of the different mental activities. Sensations, on this account, do not seem to have intrinsic spatial content that is available in all cases to the subject—this content seems only to become available when the subject also has a long-term body image. It is as if the causal nervous system occurrences undergo some subpersonal processing before being made available to consciousness, and it is only when this processing involves a long-term body image that the resulting sensations have appropriate spatial content. This is not to say that were one to lack such a body image one would experience no such sensations; instead, the claim seems to be that the body image in part supplies some of the content of the sensation. If this is a correct interpretation of O’Shaughnessy’s account we can see why he would insist that the long-term body image is a subpersonal component rather than something arising at the personal, conscious level.

Given that sensations only tell one about one’s own body and no other,²⁸⁷ and given that the long-term body image only informs one of one’s own structure and says nothing about what is beyond one’s boundaries or the spatial relations of the parts of the body not immediately connected, it seems reasonable to say that the most the subject could glean from its sensations and its long-term body image is the state of its own body. Neither the long-term body image nor the sensations have any content that tells one about an external state of affairs. As far as the above goes, then, sensations would appear to have only *bodily* spatial content—they only come to one as at a place in the body, not as at a place in the body at a place in physical space. Such content only comes with the addition of another element to the picture, the *short-term body image*. This concerns one’s awareness of one’s structure at any particular instant—not only of one’s general (long-term) structure but one’s actual posture at that time. In fact, it seems impossible in our case that one should have sensations that appear to one as at a location within the body but that one should be unable to say anything about the present disposition of that body part (e.g. ‘the pain is in my arm but I cannot say

conceptual or nonconceptual levels. O’Shaughnessy himself acknowledges this at points (see, for example, (1995), pp. 183-4).

²⁸⁷ This is one of the reasons why bodily sensation is often thought not to be a form of perception.

how my arm is situated'). We cannot separate the bodily-location component of sensation from the wider body-in-physical-space component. For this reason O'Shaughnessy claims that if one only possessed a long-term body image one would be unable to undergo any sensations at all. For it is the awareness that one has of one's present posture that provides the backdrop to one's awareness of the spatial content of sensations: the short-term body image "provides a framework in which to locate sensations such that we shall be able to state, not only *in what part* of the body the sensation is located, but also its *body-relative position*".²⁸⁸

The short-term body image, then, is a constantly changing awareness of one's present bodily posture. Body parts can disappear from this: if one were to lose sensation in one's leg (and not be visually or tactilely aware of it) the leg would no longer feature in one's short-term image (it would, however, remain as part of one's long-term image). Similarly, total anaesthesia brings a total loss of short-term body image, but need have no effect upon one's long-term body image. It is interesting in this context to note the fact that loss of a short-term body image or loss of a body part from a short-term body image results in the inability to plan or perform action involving the relevant limbs, etc., in that (for example) if one has no grasp of where one's leg is one will not be able to kick a football with it (this point will be discussed in some detail in the following chapter). The short-term body image depends for its existence upon that of the long-term image—it is how one takes oneself in general to be that provides the background for a sense of how one takes oneself to be now. As suggested by the quotation above, if one took oneself in general to be octopus-shaped one will not be able to grasp that one has arms and legs arranged thus, no matter what sensations one has.²⁸⁹

In fact, the short-term body image is 'how at instant t_I one seems to oneself to be disposed in spatial respects R in space', as it appears in the above quotation. The long-term body image and the pseudo-spatial content of sensation together cause the subject's short-term image. In fact, the content of sensation stands in an interdependency with the possession of a short-term body image.

²⁸⁸ O'Shaughnessy (1980), vol. 1, p. 241.

²⁸⁹ Cf. *ibid.*, pp. 242-3, and (1995), p. 191.

The former is one of the factors that cause the latter; it, in turn, partially determines the spatial content of the former. O'Shaughnessy actually distinguishes three types of short-term body image: the (α)-, (β)- and (γ)-type short-term body images.²⁹⁰ It is worth mentioning these, even though they will not feature prominently in the following discussion. The first, the (α)-type short-term body image, is “*the content of the proprioception of the body at any moment*”.²⁹¹ This may be radically incomplete, depending upon where one's attention is focused at the instant in question. The second, the (β)-type image, is “*the proprioceptively perceptible of the moment*”.²⁹² It is an idealization of, or construct out of, (α) images—if one could attend fully to all of one's proprioceptive sensations at any time (rather than focusing on certain parts at the expense of others), one would have such a (β)-type image. The final, (γ)-type short-term body image, is a further idealization, and contains the entire content of the (β) image plus the proprioceptive content that one would have should the entire surface of one's body be subject to such sensation. The content of this final type of body image becomes clear when we realize that certain parts of our body are not as a matter of fact going to reach awareness through proprioception. A leg might be numb, or a body part might just not have the suitable nerve-connections for it to feature in proprioceptive awareness. Nevertheless, such parts feature in one's (γ) image. In effect, as O'Shaughnessy himself summarizes the distinctions, “the (α) image is of *the perceived* at any instant, the (β) image is of *the perceptible* at any instant, and the (γ) image is of *the potentially perceptible* at any instant”.²⁹³ In general, we will not need to distinguish between these in our present context. We are, after all, concerned with the spatial content of sensation in general, not with the potential spatial content of increased (or potential) bodily awareness, or whatever.

What is important is that it is the fact that a subject possesses both a long-term and short-term body image that allows her to have sensations with both bodily and physical spatial content—that is, her sensations seem to occur at a

²⁹⁰ O'Shaughnessy (1995), pp. 184-7.

²⁹¹ *ibid.*, p. 184.

²⁹² *ibid.*, p. 185.

²⁹³ *ibid.*, pp. 186-7.

place in her body at a place in (objective, external) space because she possesses both sorts of body image. Sensations would not have bodily spatial content were it not for the subject's possession of the long-term body image; likewise, they could not have physical spatial content were it not for the short-term body image (and due to the dependence of the short-term image upon the long-term, they could not have physical spatial content if they did not have bodily spatial content). It is this theory of the body image that provides the background to O'Shaughnessy's account of the spatial content of sensation (5. in the above list), and thus forms part of the challenge that O'Shaughnessy's theory poses for my main claim.

I want to go on to suggest that, despite appearances, this theory is actually broadly compatible with the thesis that I am advocating. First, however, it is worth noting that the theory of the body image plays no role in either Martin's or Brewer's account of the spatial content of sensation. Nevertheless, the point that I want to make in connection to O'Shaughnessy's theory can equally well be made in Martin's case and is as good as already accommodated by Brewer, as we will see.

§4.3.3 Body images & action

In order to see just how we might reconcile O'Shaughnessy's theory with my claim concerning the connection between active experience and spatial awareness, we have to focus upon the relationship between the two sorts of body image. In particular the origins of the physical spatial content of sensation should be considered, and the case of the Weather Watchers₄ should be looked at in light of this. We can touch upon the theories of Brewer and Martin in this context, and I will then comment upon type-5. accounts in general.

Returning to O'Shaughnessy, then, we can see from the above that we can distinguish two sorts of spatial content that sensations may (and do, at least in our case) possess. Firstly, there is bodily spatial content—the sensation comes to one as being within one's body—and secondly, there is physical spatial content—the sensation comes to one as being within one's body which is itself located in wider, physical space. The first question that arises in terms of our present

project is: can these two sorts of content come apart—in particular, can one’s sensations possess the former and not the latter?²⁹⁴ I shall claim that we should give an affirmative (if qualified) answer here. My argument will then proceed by claiming that granting the Watchers sensations with only bodily spatial content alone poses no challenge to the thesis. I shall then argue that activity is the key to progressing from a state where one only has sensations with this limited spatial content to a state where one can undergo sensations with full-blooded bodily and physical spatial content. As a result of this, it follows that the Watchers₄ could not have sensations with such physical spatial content. In O’Shaughnessy’s case, this claim will turn upon the connection between types of body image, as mentioned above. Brewer, as we will see, is already sympathetic to this claim; Martin, on the other hand, has little to say in this context.

The first issue to tackle, then, is whether granting the Watchers₄ sensations with *bodily* spatial content could pose a threat to the thesis. In order to answer this we have to consider where the difference lies between the two sorts of spatial content. The thought that all sensation must have physical spatial content is a definite threat—without any other reason to deny sensations to the Watchers₄ (and I have not offered any), adopting this view would amount to granting the creatures full spatial awareness, this arising through their bodily sensations. Can we conceive of a situation in which a subject might have sensations with only bodily spatial content?

Consider what this would be. For sensations to have physical spatial content is for them to come as at a part of the body, itself at a place in external space. As noted above, we cannot conceive of sensations appearing to come only at a point in objective space and not as also at a point in the body. The present line of thought requires that the converse should be possible; that sensations might come to one as at a point in the body, but not as at a point in physical space. As O’Shaughnessy notes, this is not possible in our own case. We could not have sensations that came to one as at a point in the body but suggested no location in external space. This is because we are aware of the physical

²⁹⁴ We have already rejected the idea that one’s sensations could possess physical spatial content but not bodily spatial content. See the discussion of option 3. in §4.3.1.

disposition of our own bodies—in fact, such sensations in part provide us with just this awareness. Given this grasp of our physical structure and posture, it is hard to conceive just what it would be like to have a sensation that was of the body yet did not appear to have any particular bodily location. We can understand that general sensations such as nausea and dizziness might be like this, but what about a pin-prick pain, or a tickle? This fact is explained by the role of the body image in O’Shaughnessy’s theory (particularly the short-term body image), as can be seen from the preceding section.

Possession of a long-term body image only gives one a grasp of the structure of one’s body (which will usually change little over time), and not of its present posture and state (which will change often). This structure is constituted by the immediate connections between body parts—finger connected to hand at point p, etc.—*and* by the possibilities for movement implicit in the body parts and connections—that the index finger is jointed internally at two points, and is connected to the hand at a third joint, and that these joints permit certain specific movements and not others. In other words, the long-term body image is not like a photo-realistic diagram or sketch of one’s body, but rather more similar to a diagram that contains all the possibilities for one’s motion and posture within it (something along the lines of da Vinci’s famous diagram of the proportions of the body, but massively more complex). This is why O’Shaughnessy states that the long-term body image is “the determinant of actual and potential sets of [short-term body images]”.²⁹⁵ In the case of subjects able to act, this long-term body image will both constrain and facilitate their activities and plans, in that what one can do (and can plan to do) is constrained by what one believes oneself able to do.²⁹⁶ Given that one’s short-term body image is dependent upon one’s long-term body image, this means that one’s grasp of one’s present posture is dependent upon an awareness of one’s potentialities for movement and change.

²⁹⁵ O’Shaughnessy (1980), vol. 1, p. 246.

²⁹⁶ This is essentially the same point that I made about the body in §1.3.6. I will discuss whether we actually need this notion of a long-term body image in the following chapter. Nevertheless, if it is accepted that a subpersonal component is required then it certainly must have this feature.

The long-term–short-term body image distinction only comes about due to the subject’s possibilities of action and movement.²⁹⁷

In the case of the Weather Watchers₄, there is no such possibility of action, and therefore no such distinction. More precisely, all that the Watchers₄ could have would be something akin *but not identical* to the long-term body image; it will lack all of the content relating to the possibilities for motion, which is crucial to the role of the long-term body image in O’Shaughnessy’s account (we have no reason to deny them this sort of body image). This pseudo-long-term image will contain information about the connection of body-parts—finger to hand, hand to arm, etc.—but will say nothing about the relationship between parts not so connected, such as their relative sizes or their relative positions. The notion of posture only gets a hold where there is the room for bodily movement, so there is no room for the short-term body image in their mental lives, and it is only through this short-term image that sensation gains physical spatial content. This line, then, seems to suggest that the Watcher₄ could not have sensation with physical spatial content—at most they could have sensation with bodily spatial content. Could, then, the sensations of such a creature have such content?

The answer seems to be a qualified ‘yes’ here. If one has a grasp of the structure of one’s body but no sense of how this fits into an external world (nor even any conception of an external world), then it seems perfectly possible that one’s sensations should come to one as at a location within this body. One’s awareness of the three-dimensional structure of this body can still justifiably be called ‘spatial’ even though it is not accompanied by a grasp of the fact that there is a world beyond one’s limits. That is to say, the content is indeed spatial and not just qualitative (i.e. positions 1.-3. above are not correct even in this case), even though the form of awareness that arises would not meet the physical significance requirements discussed earlier—the awareness would not be spatial in the sense with which we are primarily concerned. The qualification arises when we note that one can only have a grasp of one’s body *as one’s body* when one comprehends the distinction between what is a part of oneself and what is

²⁹⁷ *ibid.*, vol. 1, pp. 245-6.

not. In other words, there is nothing that could constitute a solipsistic understanding of a body as a body, even though there may be such a thing as a solipsistic grasp of bodily sensation.²⁹⁸

Michael Martin acknowledges this possibility in the following passage. In a slightly different context, he states that,

One can indeed imagine a creature for which it would be true to say that it felt sensations to have a location without thereby feeling them to have a bodily location. Suppose we have a creature which has sensations, but has no sense of the contrast between itself and the rest of the world. ... For instance, suppose we have a kind of jellyfish living in currents good enough to move it towards food and away from harm. The jellyfish lacks all sense of its boundaries with the rest of the world Although it has sensations which inform it about its body, it is doubtful whether we should think of it as sensing its body as its body. In this case there does not seem to be a useful contrast to be made for the creature itself between its body and the rest of the world.²⁹⁹

Here Martin accommodates the point about the solipsistic lack of a body–world distinction by saying that such a creature’s sensations could have no felt ‘bodily location’. Despite the terminological quibble, we can see that the point is the same: such a creature can have sensations with some degree of spatial content, but this content will not include any reference to a physical reality beyond its boundaries (it would not be aware of space as an external arena). It is worth noting, incidentally, that Martin’s jellyfish mirror the Weather Watchers in that they are unable to act (at least insofar as he describes them).³⁰⁰ They are only carried about by currents—they do not move themselves. We should, however, bear in mind the fact that Martin draws no connection between the jellyfishes’ passivity (their lack of purposive action) and their solipsism; in particular, he does not claim that the former entails the latter (although he would surely advocate the converse).

Let us pause here and look at what has been discussed so far in this section. We can represent it in the following way:

1. possession of a long-term body image involves:

²⁹⁸ Cf. P. F. Strawson’s comments on solipsism in his (1959), Ch. 2.

²⁹⁹ Martin (1993), p. 210.

³⁰⁰ Their solipsistic nature suggests that there is not even the logical possibility of action in their case.

- 1.1. an awareness of one's bodily structure,
- 1.2. a grasp of one's possibilities for action;
2. awareness of bodily space comes from possession of a one aspect of the long-term body image, namely 1.1;
3. awareness of physical space comes from possession of a short-term body image;
4. possession of a short-term body image depends upon possession of a long-term body image, specifically 1.2;
5. the Weather Watchers₄ have no possibilities for action;
6. (from 1.2 & 5), the Weather Watchers₄ could not possess a long-term body image (1.2);
7. (from 4 & 6), the Weather Watchers₄ could not possess a short-term body image;
8. (from 3 & 7), the Weather Watchers₄ could not have physical spatial awareness;
9. sensations have spatial content—this must be either *bodily* or *physical* spatial content;
10. (from 2, 3 & 9) in order to have sensations one must have a long-term body image (1.1) or a short-term body image;
11. the Weather Watchers₄ can possess a partial long-term body image (1.1);
12. (from 10 & 11) the Weather Watchers₄ can have sensations;
13. (from 11 & 12) the Weather Watchers₄ can possess bodily spatial awareness.

Assumptions 1 to 4 represent certain key points from O'Shaughnessy's theory; 5 comes from Galen Strawson's thought experiment; and 9 is the conclusion reached in §4.3.1. The other assumption, point 11, comes, firstly, from the fact that we have no reason to deny it. We can, however, also extract some motivation for it in the following way. If we take the argument as it is until point 9, we could alternatively have:

- 10' (from 8 & 9) the spatial content of any sensation that the Watchers₄ might have must be bodily spatial content;
- 11' the Weather Watchers₄ can have sensations;

12' (from 10' & 11') the Weather Watchers₄ can possess bodily spatial awareness;

13' (from 2 & 12') the Weather Watchers₄ can possess a partial long-term body image (1.1).

That is, by assuming that the Watchers₄ have sensations we can show that they must have a partial long-term body image (1.1). This demonstrates the interdependency between the long-term body image and the having of sensations (sensations without physical spatial content, to be precise).

Point 8 is, of course, the main conclusion of the section. It shows us that O'Shaughnessy's type-5. theory of the spatial content of sensation does not after all pose a challenge to the present thesis. The following secondary argument (from 9 to 13) goes further, and demonstrates that his theory can accommodate at least some of Galen Strawson's intuitions about the Watchers₄ (the second possible argument, 9' to 13', is also relevant here), intuitions with which I do not wish to take issue. Not all of these claims have as yet been fully argued for. In particular, I have yet to show any real reason for holding that the Weather Watchers₄ might be able to possess a partial (or pseudo-) long-term body image (11) in the first argument, or that they can have sensations (11') in the second. Some motivation comes from the straightforward fact that there seem to be no reasons for denying these—both seem to be perfectly conceivable.³⁰¹

§4.3.4 An objection—*are solipsistic sensations possible?*

One still might be inclined to doubt that it is possible that there could be a Weather Watcher₄ with a partial long-term body image or that such a creature could have sensations. I will not argue for the latter—by allowing it, I am really only accommodating some of Strawson's intuitions (the thesis does not turn upon it in any way). However, doubts concerning the possibility that the Watcher₄ might possess a body image of sorts are more important, and might well come hand in hand with a scepticism about the conjunction of the two claims that, firstly, the Watcher₄'s sensations could be truly described as 'spatial', and secondly, that at the same time their spatial awareness could not be extended to

³⁰¹ Other than behaviourist ones, it might be added, which as already stated I will not rely on.

what lies beyond their own boundaries. It might be argued that if the content of the creatures' (Watchers₄ and jellyfish) sensations could be called 'spatial' then the content should be enough to give them a grasp of external, objective space, i.e. that reality beyond one's skin in which one exists as one object amongst many. Either one has a grasp of all spatial concepts, or one has no spatial concepts, this objection would run. This would pose a problem for the thesis, in that the two claims that (a) the Weather Watchers₄ have sensations, and (b) sensations must have both sorts of spatial content would suggest that the creatures could base a grasp of spatial concepts upon the spatial content of their sensations.

I want to reply to this objection by bringing in certain considerations concerning the notions of *structure* and of *boundaries*, the relevance of which should become clear. First, let us flesh out how this opposing line of thought might run. My claim was that it is both possible and compatible with O'Shaughnessy's theory that the Weather Watchers₄ might have a partial long-term body image and bodily spatial awareness, but yet not possess spatial concepts of the sort that the thesis is primarily concerned with. The sceptic might reply that if the Watcher₄ does indeed possess a body image, then it will have some grasp of its structure. If it has such a grasp, then it must also have some awareness of its boundaries. It should then be able to understand that these boundaries are boundaries *with something else*—an external reality. If it can comprehend this then it can extend its spatial concepts/awareness to encompass this other space that lies outwith itself.

Such a line of thought turns upon a perceived connection between the idea of 'structure' and that of 'boundaries'—that structure entails boundaries, and that if one is aware of the former one must also be aware of the latter. In everyday life—in the world of medium-sized objects and non-solipsistic consciousness—this might well be true. But I want to maintain that this is not a necessary connection. Consider our concept of 'spacetime' within the context of the General Theory of Relativity (GTR). Within GTR we can perfectly well make sense of the idea of curved spacetimes—spacetimes with the topologies of doughnuts, saddles, or the inner surface of a sphere. These bounded areas have

structure—they have topological structure, the kind of structure that gives the properties of the points of the area³⁰²—but do not exist within a larger, external spatial framework. It is, as Christopher Ray puts it, “a mistake to think in terms of spacetime as a three-dimensional structure sitting in some background container”.³⁰³

Martin discusses the place of boundaries within the context of the distinction between solipsistic and non-solipsistic bodily awareness. He locates the difference between case of the jellyfish (and the Weather Watchers₄ in our discussion) and our own situation in the following way. The jellyfish have sensations with felt location but have no sense of the body–world distinction. They could therefore have no sense of their boundaries—its body would “extend to encompass the whole world, or ... the world [would] apparently shrink to the limits of [its] body”.³⁰⁴ Nevertheless, the felt (bodily) location of sensation entails that it must have some sense of its bodily (topological) structure—this is because a sensation can only have a location where there is a stable, recognized area in which the sensation can occur. It is this that constitutes the creature’s partial long-term body image. We, on the other hand, can comprehend our boundaries and the fact that there is a “world extending beyond one’s limits ... composed of regions of space which one couldn’t at this time be feeling a sensation to be located in”.³⁰⁵

The idea that a creature could have sensations with felt bodily sensations and a sense of its structure but yet have no grasp of an external spatial world should be validated by these considerations. Within this context, it is not easy to see how one might progress from such a state (from undergoing sensations with only bodily spatial content) to one where sensations could have physical spatial content. Certainly, there is no easy generalization that is available to the

³⁰² Cf., for example, Ray (1991), pp. 20-3 & 54, and Sklar (1992), Ch. 2.

³⁰³ Ray (1991), p. 74, from the text of Figure 19.

³⁰⁴ Martin (1993), p. 212.

³⁰⁵ *ibid.*, p. 212.

solipsistic consciousness here, as the above objection suggested. My contention is that it is only the ability to act that allows a subject to cross this divide.³⁰⁶

Most of the discussion in the last few sections was concerned specifically with the work of Brian O'Shaughnessy, as this provided a good, detailed example of a theory of the fifth type listed in §4.3.1 above, and is a theory that I intend to employ in the next chapter anyway. O'Shaughnessy, it should be noted, does not consider the situation of such passive creatures in his account of the body image because this account comes within the context of a study of the will. If one is only looking at subjects with the ability to form intentions, then there is simply no reason to take on board many of the points made above. This fact explains most of the apparent discrepancies between the above discussion and O'Shaughnessy's writings.

On a more important matter, while there might be suitable justification for such an emphasis on O'Shaughnessy's work, it might seem to do nothing to show that we should adopt of type-4. theory for the case of the Watchers₄. What it does show, however, is that we can adopt such a theory for such creatures while acknowledging the fact that a type-5. theory is the most appropriate to our own case. It is to the merit of the theories considered that they can allow such a difference in the felt location of sensations for creatures as different as humans and jellyfish (or even sentient tree-like beings). It might be thought that in light of this the present section has not achieved its aim, of demonstrating that there could not be a Weather Watcher who could base an awareness of external, spatial reality upon the contents of its sensations. Instead, all that seems to have been achieved is that it has been shown that a Watcher₄ need not have sensations with such content that would allow them to base a grasp of spatial concepts upon it. This, however, is not quite true. What I have demonstrated is that there are two distinct types of spatial content that sensations may have, and claimed that the lesser is the more relevant to the Watchers₄. More, I have intimated the complexity of what is involved in having sensations with the other content

³⁰⁶ Martin does not make a similar claim, it should be stressed, although such a claim would indeed be compatible with his position. Brewer, on the other hand, does make this claim (Brewer (1995), §4).

(physical spatial felt location), and from passing from the former to the latter. Now, given that both types of sensation are possible, anyone who wished to claim that the Watchers₄ might base an awareness of spatial reality upon the felt location of sensation would have to explain just how they manage to bridge this gulf. They would also be faced with the arguments posed in the previous chapter, concerning the application conditions of spatial concepts. For if one wishes to claim that the Watchers can have spatial awareness one is obliged to tackle that particular problem, irrespective of where one believes this awareness originates from.

It is worth reminding ourselves why we even looked at the issue of the spatial content of sensation. The reason was as follows. The plausibility of any theory concerning the spatial content of sensation does not stand or fall depending upon whether it fits with my thesis. Such theories are independently plausible (or otherwise, as with types 1. to 3. above). If I wished to advocate a thesis that only cohered with implausible theories of sensation content, then that is a *prima facie* reason for rejecting the thesis and any apparently sound arguments for it. If, on the other hand, it could be shown that the thesis accorded with the most plausible theories of sensation content (and those that seemed to pose the strongest problems for it), then this should lend credence to it and provide one with no *prima facie* grounds for rejecting the supporting arguments.

To sum up, one can either claim that the Weather Watchers₄ have sensations with only bodily spatial content (position 4.) or sensations with bodily and physical spatial content (position 5.). If the former, one can still accept all the strong reasons for holding a type-5. theory in our own case. If the latter, one is still faced with the problems of explaining (a) how this robust spatial awareness comes about, and (b) how such a creature could have such spatial awareness in light of the arguments in the previous chapter.

4.4 One final objection

In §2.2 I noted that there was an objection that might be raised against the methodology of the thesis. We are now in a position to return to that. To recap, it was suggested that it might seem that by using the idea of a *fundamental*

framework in the above manner we might be overlooking the possibility that two or more of the frames without essential connections to action, each of which are independently unavailable to the Weather Watchers, might be accessible to these passive creatures when combined. That is, the above arguments might be misleading in that they fail to take into account the possibility that a *combination* of the frameworks considered might be sufficient for spatial thought.

I want to suggest that seeing this as a problem for the present methodology is a mistake. The reason turns upon the fact that these are conceptual frameworks and not actual subpersonal structures. To see this, we should note that there are two ways in which we might understand the claim that the different frameworks are connected in just such a way that one frame of reference alone will be of no use to the subject but two (or more) might, based upon the two ways in which the conceptual groupings might be related. They could either display a one-way dependency or be interdependent.

If the former is intended, then the suggestion is that there is a conceptual hierarchy in the case of spatial concepts. The possession conditions for certain of the clusters of concepts will make essential reference to the possession of another of the clusters. To grasp this suggestion, we might note that the possession conditions for concepts applicable in perception will standardly refer to the kinds of perceptual experience that the subject can have, as well as the subject's other abilities. One must be able to hear if one is to grasp the concept of sound. They may also, however, contain mention of other concepts, which may or may not be more fundamental.³⁰⁷ For example, musical concepts such as *tempo*, *timbre*, *pitch* and the like require the subject to possess a grasp of the concept of sound; yet understanding the idea of sound does not necessitate a possession of these particular musical concepts (one can even grasp the concept *music* without having these concepts, although one's attempts at producing music of any quality might be hampered). The present suggestion might be that the possession

³⁰⁷ Cf. Peacocke (1992), pp. 11-12. Peacocke holds that in the case of holistic interdependencies, the possession requirements will not make mention of the other concepts in the holism. Concepts existing in holisms are to be given their possession conditions *en masse*; for this reason, any concept mentioned in the possession conditions for another will be more fundamental on his account. We can leave this issue aside here.

requirements for certain clusters of spatial concepts make essential reference to others in a way that is not reciprocated.

Such a reading does not suggest any plausible objection, though. All it would suggest is that some framework is genuinely more fundamental than certain others, and that these latter frames are actually incomplete. Clearly, this is no problem for the present methodology; all it entails is that not all of the frameworks we are considering are complete. In fact, this would have served to rule out certain of the frames outlined in Chapter Two without having to resort to the arguments in this and the preceding chapter.

On the second reading of the potential objection, it amounts to a denial of the claim that each of the suggested frameworks is as a matter of fact complete; they would instead be parts of some, larger conceptual holism. An example of where this is straightforwardly true would be in the case of colours; the cluster of concepts centred around red and yellow will of course be interconnected with those based around green and blue. The parallel suggestion here would be that the frameworks outlined below are incomplete; only two or more together provide us with a truly holistic spatial frame of reference. Taken in this very straightforward way, one way to deal with the objection just would be to stress the completeness of each of the frameworks discussed, as demonstrated in the relevant sections.³⁰⁸ It is simply not the case that any of them display the gaps which we would expect to find in an incomplete framework.

Not all relations between interdependent concepts need be so obvious, though. The uncovering of holistic interdependencies can be illuminating, and is certainly a significant part of philosophy.³⁰⁹ Correspondingly, the present suggestion need not be read as claiming that certain apparent spatial frameworks are clearly incomplete, and necessitate examination in conjunction with other such frameworks; the idea might rather be that there are less transparent connections between frameworks which, when brought to light, will demonstrate that tackling each frame as a separate entity fundamentally misrepresents the

³⁰⁸ §§2.4–2.7.

situation. If this is true, then of course a subject could not employ only (e.g.) a map-like spatial frame of reference on this view—this would not be a complete conceptual framework at all.

In the context of the arguments in the above chapters, this point would manifest itself in the claim that these arguments hold against non-egocentric frameworks (if they do at all) purely because there is a restricted cluster of concepts being taken into account. The possession requirements for concepts can make reference to both experience and to other concepts;³¹⁰ a subject might fail to meet these requirements due to a lack of appropriate experience (the blind with colour concepts) or a lack of the necessary concepts (as with the above music-related concepts). I argued that the passive subject cannot possess spatial concepts for reasons of the first sort. The reply would be that the arguments actually turn upon an implicit denial of necessary concepts—an illegitimate move of the second sort.

This objection fails for two reasons. Firstly, these further, allegedly neglected concepts will also have to be applicable within passive experience. The problem does not go away; the subject simply ends up with yet more concepts, the possession requirements of which have to be met. Adding further concepts, far from assisting the subject in gaining spatial awareness, actually places greater requirements upon the subject, to put it bluntly. In fact, the objection might even be thought to presuppose the case against the arguments. If we wish to demonstrate that a subject can possess and employ certain concepts because she has access to other concepts, then the possession of these latter concepts either has to be presupposed or demonstrated. If the objector takes the first line, then the case against the arguments is indeed presupposed; if the latter is chosen, this just shifts the issue onto the arguments concerning one of the other frames. The present methodology stands up to such objections.

³⁰⁹ Some examples can be found in Peacocke (1979), Armstrong (1993) Ch. 11, and Evans' discussion of Reid (1895) in Evans (1980).

³¹⁰ They might also make reference to a subject's abilities for physical action, but this is not relevant in the present context (we are considering the case of purely passive subjects, after all).

The point can be illustrated in the following way. If we wish to demonstrate that a subject can actually possess a certain concept or group of concepts \underline{c} , we might demonstrate that the subject has the appropriate forms of experience (e.g. visual experience, active experience). Should the subject not appear to have the relevant experience, or should the issue be unclear as to what sorts of experience are relevant, we might instead try to show that the concepts can be derived from (or are presupposed by the possession of) certain other concepts \underline{d} , for which the subject does have suitable experience. We can imagine an argument of roughly this structure appearing in a argument concerning whether or not vision is required for the possession of the concept of extension (unlikely as such a dispute might be). Should one of the parties demonstrate that a blind individual can possess the concept of force (as it is available to those with tactual experience), he might proceed to argue that this demonstrated a grasp of the concept of extension. One cannot, after all, conceive of oneself as exerting force upon points of null extension. The point to notice, though, is that it was still necessary for the subject to have the appropriate sorts of experience, in this case tactual experience. Without this experience, it would not have been possible to demonstrate the possession of the first concept (extension) via the possession of the second (force). That is, the requirement that the subject have the relevant sorts of experience still holds for the second cluster of concepts. This will be true in the spatial case as well. If one wishes to object to the above arguments by claiming that the subject was denied access to one or more specific spatial concepts, it is still going to be the case that the subject will have to meet the possession requirements for these new concepts. Given that the above arguments were aimed at all non-egocentric spatial concepts, it would seem that these possession conditions must also make reference to active experience. The addition of further concepts can add nothing to the Watchers' case.

The arguments themselves should also help to demonstrate that the Weather Watchers are not denied access to spatial concepts through sleight-of-hand. It should have been clear from the discussion that the issue concerns the forms of experience available to the subjects, and it is this point upon which the arguments turn, not the matter of which if any other, overlooked concepts come

as part of the same holism. Treating the frames one-by-one in the following manner serves to allow us to study the issue in a manageable way, and a way that is fair to our hypothetical subjects. To reiterate a point made in §2.2, tackling each framework as independent actually lessens the burden upon the Weather Watcher, as it does not entail that it need meet the possession requirements for *all* spatial concepts. To give an example, the possession of an absolute framework requires a grasp of a stronger form of objectivity than the possession of certain of the other frameworks does, as has been noted by many writers.³¹¹ Insisting that the Watchers be able to apply yet more concepts does nothing to help them, and serves only to blur the distinctions between the different frameworks. The key point is that distinguishing between frameworks in the above way serves to minimize the requirements placed upon the Watchers.

One final brief note. It should be clear how the above reply depends upon the fact that we are considering conceptual frameworks, and not subpersonal or subpersonal–conceptual frameworks.³¹² If the discussion was at either of these levels then it might turn out to be an empirical matter as to whether other subpersonal modules were required. This issue does not arise for us.

§4.5 Closing summary

I should briefly summarize the broad outline of the dissertation before making some final comments. The main aim of the exercise was to deny that a purely passive creature would be able to possess and employ spatial concepts. In order to show this, I used Galen Strawson's Weather Watcher scenario as a putative counterexample. These creatures were supposed to be completely passive, right down to the mental level, but were still supposed to be able to think spatially. Next, we considered the full range of spatial frames of reference that they might employ, and tried to see if they could employ any of these as their fundamental framework. Were this to turn out to be possible, activity could have no essential place within the scheme of spatial thought.

³¹¹ Cf. Brewer (1994), for example.

³¹² See §2.1.

I attempted to demonstrate the inadequacy of purely passive experience as follows. Firstly, I considered an argument to the effect that one must be able to grasp that one is (at least in part) a physical object; this is required if one is to be able to grasp certain crucial facts about the nature of perceptual experience. I attempted to show that the grasp of the concept of a material object was unavailable to subjects unable to actively interact with other such objects. Next, I claimed that the possession of spatial concepts required that one should be able to grasp the veridical–non-veridical distinction. I then argued to the effect that the conditions for a grasp of this was not possible within purely passive experience. This turned upon the fact that the Watchers could never even in principle have any grounds for believing that any particular set of experiences was veridical.

Several objections to this line of argument were considered; in particular, I addressed Galen Strawson's objection that spatial concepts might be possessed innately. Against this, I claimed that the most that we could make sense of would be an innate disposition to develop concepts upon the having of appropriate experience. Anything stronger would deny any necessary link between concept possession and experience, even in the case of concepts whose primary application was within experience, this surely being an unpalatable suggestion.

Although such arguments held against all of the non-egocentric frameworks, it was suggested that we might consider the situation of body-centred frames in some more detail. This was due to the fact that bodily sensation—proprioception, kinaesthesia, and the like—seemed to come with intrinsic spatial content. The *prima facie* possibility was, then, that such bodily awareness might provide one with the means upon which to base one's spatial awareness, without activity entering the picture at all. This suggestion was rejected by claiming that we could distinguish at least two types of spatial content that sensation might have, and that in the case of a creature lacking the ability to act it could not have the appropriate sort of content for spatial awareness to take hold. In such a case, sensations might have locations relative to other sensations, but they could have no location in the objective order of things.

Some final comments. We should not be misled by the above into thinking that grasp of spatial concepts is a remarkable, and somewhat mysterious feat. Instead, as Evans notes, it can be surprising “how *little* a subject seems to need to think objectively”, and the same holds for spatial thought.³¹³ All that is actually required, if we stop for a moment to consider, is that a creature is able to think conceptually, have suitably structured experience and physically interact with other objects. Of course, the details of the experience, etc., will depend upon the type of creature. The requirements for an intuitive physics and a body image are implicitly involved in action—they are not something over and above it. If one can act and think, one has these already. Only those wedded to the jaded view that it is only the philosophy of language and logic matter would ever think of denying that some sort of experience is required in this context, and it is obvious that not any type of experience would do.

There is another philosophical prejudice that has been touched upon related to the matter of the necessary forms of experience. When discussing experience in general, the sense most often used as an example in works of philosophy is vision. This, however, only serves to misrepresent our experience of embodiment. Vision is the more passive of the two main outer senses, the other being touch. One is inclined to think of oneself as presented with a panorama, a vast area open to one in which things happen for one to perceive irrespective of one’s passivity or activity. Yet it seems that this sense will not provide the main resources for a grasp of the fact that we are located in the world we see; touch and body sense are more relevant here—they allow one access to the world of objects, not just that of experiences. Also, recent work at the borders of cognitive science, developmental psychology and philosophy seem to suggest that one is not in any case presented with such an open vista in visual experience.³¹⁴ A greater attention to phenomenology and psychology can only benefit philosophy in the long term, although we must, of course, be wary of identifying the different disciplines.

³¹³ Evans (1980), p. 77.

³¹⁴ Cf. Churchland et al. (1994), and Clark (1997), p. 31, for example.

To claim that little is actually involved in spatial concept possession is not to deny, though, that it is not possible to fall below the lower limits of sense, as P. F. Strawson puts it. As with any substantial ability there will be some conditions to be met, and to ascribe the ability to any form of life without further reflection is to risk absurdity. It is exactly this that Galen Strawson faces with his assumptions about the Weather Watchers' abilities. And, it should be stressed, behaviourism has nothing to do with it.

There are numerous related avenues that merit further exploration. The connections to the apparent possibility of scepticism and the impossibility of solipsism both deserve substantial treatment, as does the possibility of further transcendental arguments leading to a proof of the existence of the external world. The fact that one's intuitive physical theory is *constitutive* of the concept of an object suggests that the resources for some form of internal realist argument of this sort (possibly along similar lines to Putnam's famous argument) are to be found in this part of the conceptual terrain. Further discussion of the problems inherent in the traditional empiricist doctrine of impressions would have been worthwhile as well, as would an analysis of the way that the assumption of passivity leads to problems in McDowell's recent work. Even if these have not been achieved, hopefully the above will have gone some way to suggesting certain lines of approach, and this surely is a worthwhile exercise itself.

It is worth closing with a final, if rather lengthy, quotation from Hampshire, one of the few philosophers in recent years to have stressed the point that I have argued for. In a typically evocative passage, Hampshire tries to capture the very essence of our place in the world and our experience of it. In one way or another, all of the main claims that I have argued for are encapsulated here.

The deepest mistake in empiricist theories of perception ... has been the representation of human beings as passive observers receiving impressions from 'outside' of the mind, where the 'outside' includes their own bodies. In fact I find myself from the very beginning able to act upon objects around me. In this context to act is to move at will my own body, that persisting physical thing, and thereby bring about perceived movement of other physical things. I not only perceive my body; I also control it; I not only perceive external objects, I also manipulate them. ... I

find myself living in a medium of physical action and reaction, and I do not always need to infer from my observations alone that I have made a movement of some particular kind. This felt resistance to my will defines for me, in conjunction with my perceptions, my own situation as an object among other objects. Both perceptions and bodily sensations contribute to this elementary discovery; even taken together, they do not constitute the whole of it. I know directly, that I tried, or set myself, to move... No knowledge is more direct and underived than this knowledge.³¹⁵

One's control and one's awareness of this control are both prior to experience. As long as we recognize this fact, we can capture the essence and origin of our spatial awareness, which is something that no exercise spelled out in terms of passivity could ever do.

³¹⁵ Hampshire (1959), pp. 47-8.

References

- Anscombe, G. E. M. (1957) *Intention*. Oxford: Basil Blackwell.
- Anscombe, G. E. M. (1962) 'On Sensations of Position'. *Analysis* 22, pp. 55-8.
- Armstrong, D. M. (1962) *Bodily Sensations*. London: Routledge.
- Armstrong, D. M. (1993) *A Materialist Theory of the Mind* (revised edition). London: Routledge.
- Bennett, Jonathan (1966) *Kant's Analytic*. Cambridge: Cambridge University Press.
- Bennett, Jonathan (1979) 'Analytic Transcendental Arguments', in Bieri et al. (1979).
- Berkeley, George (1975) *Philosophical Works including the Works on Vision*. London: Dent.
- Bermúdez, José Luis, Anthony Marcel and Naomi Eilan (eds.) (1995) *The Body and the Self*. Cambridge, MA: Bradford/MIT Press.
- Bieri, Peter, Rolf-P. Horstmann and Lorenz Krüger (eds.) (1979) *Transcendental Arguments and Science*. Dordrecht: D. Reidel.
- Brewer, Bill (1992) 'Self-Location and Agency'. *Mind* 101, pp. 17-34.
- Brewer, Bill (1994) 'Thoughts About Objects, Places and Times', in Peacocke (1994).
- Brewer, Bill (1995) 'Bodily Awareness and the Self', in Bermúdez et al. (1995).
- Campbell, John (1985) 'Possession of Concepts'. *Proceedings of the Aristotelian Society* 85, pp. 149-70.
- Campbell, John (1993) 'The Role of Physical Objects in Spatial Thinking', in Eilan et al. (1993).
- Campbell, John (1994a) 'Objects and Objectivity', in Peacocke (1994).
- Campbell, John (1994b) *Past, Space, and Self*. Cambridge, MA: Bradford/MIT Press.

- Campbell, John (1997) 'Sense, Reference and the Selective Attention I'. *Aristotelian Society Supplementary Volume 71*, pp. 55-74.
- Cassam, Quassim (1989) 'Kant and Reductionism'. *Review of Metaphysics* 43, pp. 72-106.
- Cassam, Quassim (1997) *Self and World*. Oxford: Oxford University Press.
- Churchland, Patricia S., V. S. Ramachandran, and Terence J. Sejnowski (1994) 'A Critique of Pure Vision', in Koch and Davis (1994).
- Clark, Andy (1997) *Being There: Putting Brain, Body, and World Together Again*. Cambridge, MA: Bradford/MIT Press.
- Cole, Jonathan (1991) *Pride and a Daily Marathon*. London: Duckworth.
- Cooper, Lynn A. and Margaret P. Munger (1993) 'Extrapolating and Remembering Positions Along Cognitive Trajectories: Uses and Limitations of Analogies to Physical Motion', in Eilan et al. (1993).
- Crane, Tim (ed.) (1992) *The Contents of Experience*. Cambridge: Cambridge University Press.
- Dancy, Jonathan and Ernest Sosa (eds.) (1992) *A Companion to Epistemology*. Oxford: Basil Blackwell.
- Davidson, Donald (1980a) *Essays on Actions and Events*. Oxford: Oxford University Press.
- Davidson, Donald (1980b) 'Agency', in Davidson (1980a).
- Davidson, Donald (1984a) *Inquiries into Truth and Interpretation*. Oxford: Oxford University Press.
- Davidson, Donald (1984b) 'On the Very Idea of a Conceptual Scheme', in Davidson (1984a).
- Dennett, Daniel (1978a) *Brainstorms*. Montgomery, VT: Bradford.
- Dennett, Daniel (1978b) 'Where Am I?', in Dennett (1978a).
- Descartes, René (1968) *Discourse on Method and the Meditations*, trans. F. E. Sutcliffe. Harmondsworth: Penguin.
- Dretske, Fred (1994) 'Introspection'. *Proceedings of the Aristotelian Society* 94, pp. 263-78.
- Eilan, Naomi, Rosaleen McCarthy and Bill Brewer (eds.) (1993) *Spatial Representation: Problems in Philosophy and Psychology*. Oxford: Basil Blackwell.

- Evans, Gareth (1980) 'Things Without the Mind—A Commentary upon Chapter Two of Strawson's *Individuals*', in van Straaten (1980).
- Evans, Gareth (1982) *The Varieties of Reference*. Oxford: Oxford University Press.
- Evans, Gareth (1985a) *Collected Papers*. Oxford: Oxford University Press.
- Evans, Gareth (1985b) 'Molyneux's Question', in Evans (1985a).
- Feyerabend, Hans (1988) *Against Method*, revised edition. London: Verso.
- Gallagher, Shaun (1986) 'Body Image and Body Schema: A Conceptual Clarification'. *The Journal of Mind and Behavior* 7, pp. 541-55.
- Gallagher, Shaun (1995) 'Body Schema and Intentionality', in Bermúdez et al. (1995).
- Gibson, J. J. (1968) *The Senses Considered as Perceptual Systems*. London: George Allen and Unwin.
- Gutting, Gary (ed.) (1980) *Paradigms and Revolutions*. Notre Dame: Notre Dame University Press.
- Hale, Bob and Crispin Wright (eds.) (1997) *A Companion to the Philosophy of Language*. London: Basil Blackwell.
- Hamilton, Andy (forthcoming) *The Self and Self-Consciousness*.
- Hampshire, Stuart (1959) *Thought and Action*. London: Chatto and Windus.
- Hanson, N. R. (1958) *Patterns of Discovery*. Cambridge: Cambridge University Press.
- Holly, W. J. (1986) 'The Spatial Coordinates of Pain'. *The Philosophical Quarterly* 36, pp. 343-57.
- Hookway, Christopher (1990) *Scepticism*. London: Routledge.
- James, William (1890) *The Principles of Psychology*, 2 vols. London: Macmillan.
- Kant, Immanuel (1929) *Critique of Pure Reason*, trans. N. Kemp Smith. London: Macmillan.
- Kitcher, Patricia (1990) *Kant's Transcendental Psychology*. Oxford: Oxford University Press.
- Koch, Cristof and Joel L. Davis (1994) *Large-Scale Neuronal Theories of the Brain*. Cambridge, MA: Bradford/MIT Press.
- Lehrer, Keith (1989) *Thomas Reid*. London: Routledge.

- Libet, Benjamin (1999) 'Do We have Free Will?'. *The Journal of Consciousness Studies* 6: No. 8-9, pp. 47-57.
- Locke, John (1706) *An Essay Concerning Human Understanding*, 5th ed., reprinted 1961. London: Dent.
- Lowe, E. J. (2000) *An Introduction to the Philosophy of Mind*, Cambridge: Cambridge University Press.
- McCulloch, Gregory (1998) Review of Galen Strawson's *Mental Reality*, in *Mind* 107, pp. 256-9.
- McDowell, John (1994a) 'The Content of Perceptual Experience'. *The Philosophical Quarterly* 44, pp. 190-205.
- McDowell, John (1994b) *Mind and World*. Cambridge, MA: Harvard University Press.
- MacIntyre, Alasdair (1980) 'Epistemological Crises, Dramatic Narrative and the Philosophy of Science', in Gutting (1980).
- Martin, Michael (1992) 'Sight and Touch', in Crane (1992).
- Martin, Michael (1993) 'Sense Modalities and Spatial Properties', in Eilan et al. (1993).
- Martin, M. G. F. (1995) 'Bodily Awareness: A Sense of Ownership', in Bermúdez et al. (1995).
- Martin, M. G. F. (1997) 'Sense, Reference and the Selective Attention II'. *Aristotelian Society Supplementary Volume* 71, pp. 75-98.
- Merleau-Ponty, M. (1962) *Phenomenology of Perception*, trans. C. Smith. London: Routledge.
- Millar, Alan (1991) *Reasons and Experience*. Oxford: Oxford University Press.
- Núñez, Rafael E. (1995) 'What Brain for God's-Eye? Biological Naturalism, Ontological Objectivism and Searle'. *Journal of Consciousness Studies* 2, pp. 149-66.
- O'Keefe, John (1993) 'Kant and the Sea-Horse: An Essay in the Neurophilosophy of Space', in Eilan et al. (1993).
- O'Shaughnessy, Brian (1963) 'Observation and the Will'. *Journal of Philosophy* 60, pp. 367-92.
- O'Shaughnessy, Brian (1980) *The Will*, 2 vols. Cambridge: Cambridge University Press.

- O'Shaughnessy, Brian (1992) 'The Diversity and Unity of Action and Perception', in Crane (1992).
- O'Shaughnessy, Brian (1995) 'Proprioception and the Body Image', in Bermúdez et al. (1995).
- Peacocke, Christopher (1979) *Holistic Explanation*. Oxford: Oxford University Press.
- Peacocke, Christopher (1992) *A Study of Concepts*. Cambridge, MA: Bradford/MIT Press.
- Peacocke, Christopher (1993) 'Intuitive Mechanics, Psychological Reality and the idea of a Material Object', in Eilan et al. (1993).
- Peacocke, Christopher (ed.) (1994) *Objectivity, Simulation and the Unity of Consciousness, (Proceedings of the British Academy 83)*. Oxford: Oxford University Press for The British Academy.
- Poincaré, Henri (1913) *The Foundations of Science*, trans. G. Halsted. Lancaster: Science Press.
- Popper, Karl (1972) *Objective Knowledge*. Oxford: Oxford University Press.
- Putnam, Hilary (1981) *Reason, Truth and History*. Cambridge: Cambridge University Press.
- Quinton, Anthony (1962) 'Spaces and Times'. *Philosophy* 37, pp. 130-47.
- Quinton, Anthony (1964) 'Matter and Space'. *Mind* 73, pp. 332-52.
- Quinton, Anthony (1973) *The Nature of Things*. London: Routledge.
- Ray, Christopher (1991) *Time, Space and Philosophy*. London: Routledge.
- Reichenbach, Hans (1957) *The Philosophy of Space and Time*, trans. M. Reichenbach and J. Freund. New York, NY: Dover.
- Reid, Thomas (1895) *The works of Thomas Reid, D.D.*, ed. W. Hamilton. Edinburgh: James Thin.
- Sacks, Oliver (1984) *A Leg to Stand On*. London: Picador.
- Sacks, Oliver (1985) *The Man Who Mistook His Wife for a Hat*. London: Picador.
- Sklar, Lawrence (1974) *Space, Time, and Spacetime*. Berkeley, CA: University of California Press.
- Sklar, Lawrence (1992) *Philosophy of Physics*. Oxford: Oxford University Press.

- Smith, Michael (1998) 'Galen Strawson and the Weather Watchers'. *Philosophy and Phenomenological Research* 58, pp. 449-54.
- Stevenson, Leslie (1982) *The Metaphysics of Experience*. Oxford: Oxford University Press.
- Stevenson, Leslie F. (1995) 'Experiences in the Cave, the Closet and the Vat—and in Bed'. *Philosophy* 70, pp. 167-89.
- Strawson, Galen (1994) *Mental Reality*. Cambridge, MA: Bradford/MIT Press.
- Strawson, P. F. (1959) *Individuals: An Essay in Descriptive Metaphysics*. London: Methuen.
- Strawson, P. F. (1966) *The Bounds of Sense: An Essay on Kant's Critique of Pure Reason*. London: Methuen.
- Strawson, P. F. (1980) 'Reply to Evans', in van Straaten (1980).
- Strawson, P. F. (1992) *Analysis and Metaphysics: An Introduction to Philosophy*. Oxford: Oxford University Press.
- Stroud, Barry (1979) 'The Significance of Scepticism', in Bieri et al. (1979).
- Stroud, Barry (1968) 'Transcendental Arguments'. *The Journal of Philosophy* 65, pp. 241-56.
- Taylor, D. M. (1965) 'The Location of Pain'. *The Philosophical Quarterly* 15, pp. 53-62.
- Tye, Michael (1995) *Ten Problems of Consciousness*. Cambridge, MA: Bradford/MIT Press.
- van Straaten, Zak (1980) *Philosophical Subjects: Essays Presented to P.F. Strawson*. Oxford: Oxford University Press.
- Walker, Ralph C. S. (1997) 'Theories of Truth', in Hale and Wright (1997).
- Wittgenstein, Ludwig (1953) *Philosophical Investigations*. Oxford: Basil Blackwell.
- Wittgenstein, Ludwig (1958) *The Blue and Brown Books: Preliminary Studies for the Philosophical Investigations*. Oxford: Basil Blackwell.
- Wright, Crispin (1992) 'On Putnam's Proof that We are not Brains-in-a-Vat'. *Proceedings of the Aristotelian Society* 92, pp. 67-94.