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What is distinctive about the senses?

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Table of Contents

Acknowledgements:.....	3
Thesis Abstract.....	4
Chapter 1: Introduction	5
Chapter 2: Visual enabling conditions and the visual field.....	28
Chapter 3: Enabling conditions and active attention.....	61
Chapter 4: Touch.....	92
Chapter 5: Hearing	131
Chapter 6: Taste and Smell	175
Chapter 7: Conclusion.....	212
References.....	239

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Thesis Abstract

For the most part, philosophical discussion of the senses has been concerned with what distinguishes them from one another, following Grice's treatment of this issue in his 'Remarks on the senses' (1962). But this is one of two questions which Grice raises in this influential paper. The other, the question of what distinguishes senses from faculties that are not senses, is the question I address in this thesis. Though there are good reasons to think that the awareness we have of our bodies is perceptual, we do not usually think of bodily awareness as a sense. So in particular, I try to give an account of what it is that is distinctive about the five familiar modalities that they do not share with bodily awareness.

I argue that what is distinctive about vision, touch, hearing, taste and smell, is that perception in all these modalities has enabling and disabling conditions of a certain kind. These enabling and disabling conditions are manifest in the conscious character of experience in these modalities, and exploited in active perceptual attention—in looking, listening, and so on. Bodily awareness has no such enabling conditions. The five familiar senses having this distinctive feature, and bodily awareness lacking it is not a merely incidental difference between them. Nevertheless, I do not claim that having these enabling conditions is necessary and sufficient for counting some faculty as a sense, or, correlatively, for something being an instance of sense-perception. Rather, we can see why it would serve certain (contingent) human interests for us to think of the faculties that involve these enabling conditions as instances of a single kind of thing, of which bodily awareness is not an instance.

Chapter 1: Introduction

For the most part, philosophical discussion of the senses has been concerned with what distinguishes them from one another, following Grice's treatment of this issue in his 'Remarks on the senses' (1962). But this is one of two questions which Grice raises in this influential paper. The other, the question of what distinguishes the senses from faculties that are not senses, is the question with which I will be concerned in this thesis. Here, I introduce the question, and summarise the answer I will give to it.

1. Internal and external boundaries

Grice begins his 'Remarks on the senses' with the question of how we might meet the claim 'that certain creatures possess a faculty which should be counted a sense, different from any of those with which we are familiar' (Grice 1962: 248). At the outset, he points out that there are two ways we might meet this claim. Firstly, we might deny that the faculty was a new sense, because although it was indeed a sense, it was 'only one of the familiar ones, operating, perhaps, in some unfamiliar way' (*ibid.*). We might say that the alien faculty was after all one of seeing, or tasting, for example. Secondly, we might deny that the faculty was a new sense, because it was not a sense at all. For example, we might say that the faculty was one of memory or even of divination.

Grice devotes most of his remarks to discussion of the first of these reasons for denying that an alien faculty is a new sense. And of course, though he introduces the topic via this question about alien faculties, we can take it that his interest was not so

much in alien faculties as in our own un-exotic senses. If we are to argue that some faculty is one of these, such as vision or taste, it might seem that we need a general account of what distinguishes our senses from one another.¹ It is with this question of how the senses are distinguished from one another that Grice is largely concerned in his remarks, as is much of the still relatively small philosophical literature on the senses that has followed-on from Grice's seminal paper on the topic.

Grice's own —somewhat tentative— answer to this question is that appeal to the conscious character of experience is ineliminable from any account of how the senses are distinguished from one another.² In order to characterize the conscious character of perceptual experience in any modality, on Grice's view, we need to appeal not only to its apparent objects but also to a 'generic resemblance' signalled, in the case of vision, by the word 'look'. 'Looking' on this view, denotes a distinctively visual way of appearing, independent of what the objects and properties we see, or seem to see, are. This way of appearing, Grice says, can be 'noticed and labelled but perhaps not further described' (Grice 1962: 267). Similarly, there is on Grice's view a generic and characteristic kind of 'appearing' involved in auditory experience, and in tactile experience, and so on for each of the senses. It is reference

¹ It's not obvious that this is what's required in order to meet the claim that the alien faculty is a new sense in this first way. Rather than try to find a single way in which all the senses differ from one another (say, in terms of features perceived by means of them, or the conscious character of experiences they yield) one might take a more piecemeal approach. So, for example, we might try to give the conditions under which a modality counts as vision, and a distinct set of conditions under which a sense is that of hearing, and so on.

² See also A.D. Smith 1990: 239 and E.J. Lowe 1992: 80. Austen Clark (1993) can be seen as attempting to 'naturalize' the introspectible character criterion- thus Bermudez (1999) writes that psychophysics is the attempt to 'capture scientifically' different categories of conscious state. See the same paper for some criticisms of this approach.

to this kind of ‘appearing’ that is ineliminable, Grice argues, from an account of how the senses differ from one another.

Another commonly argued-for individuation criterion is provided by features we become aware of by means of the different senses. We see colours, hear sounds, taste flavours, and so on.³ These properties that are perceived each in one modality only, we can call ‘special sensibles’. Proponents of the ‘features’ criterion argue that we can distinguish the senses in terms of their special sensibles. On this view, two perceivings count as perceivings in the same modality if both are perceivings of the same special sensible. Thirdly, some have appealed to types of physical stimuli as distinguishing one sense from another.⁴ And fourthly, some have argued that the senses are distinguished in terms of the sense-organs involved in their functioning.⁵ These four are the most commonly proposed individuation criteria, and are all to be found in Grice’s discussion of the question of how the senses are distinguished from one another. In the chapters that follow this one, I aim to remain as neutral as possible as to how this question should be answered, whilst addressing a different question about the senses. Though I will discuss sense-perception under the five headings of vision, touch, hearing, taste and smell, I do not assume, at the outset, the

³ Proponents of this view (or variants of it) include: Aristotle (*De Anima*) Colin McGinn (1991: 35), Dretske (1995: 94-5), Ross (2001) and Roxbee Cox (1970). For criticism see for example Nelkin (1990) and Nudds (2003).

⁴ This is one of Keeley’s individually necessary and jointly sufficient conditions. He suggests that in providing ‘an ontology of forms of energy’ (2002: 13) physics creates for us a space of possible sense modalities. Gray (2005) objects to this use of the stimulus criterion.

⁵ On this approach, ‘sense-organs’ can be understood to be those parts of the body we usually take to be sense-organs, or, as on Keeley’s account, might include physiological and psychological processes and mechanisms more generally. See Roxbee Cox 1970 for the claim that in order to determine which parts of the body are sense-organs, we have to already have answered the question of how the senses are distinguished. And for further critique of the sense-organ criterion, see Nudds 2003.

truth of any account of how the five familiar modalities are distinguished from one another. We will see, in section 4 of this chapter, that one might, in any case, be sceptical about whether the distinction between the senses is in any case, a non-conventional one. I want also to remain neutral as to whether this scepticism is justified. I include this brief discussion of the answers that have been given to the question of how the senses are distinguished from one another partly so as to indicate the range of positions with regards to which I want to be, as far as possible, neutral. Furthermore, since most philosophical discussion of the senses has been concerned with this question it is therefore worth having in mind, at the outset of a philosophical thesis the topic of which is the senses, some of the answers that have been given to it.

Christopher Peacocke remarks, in a different context, that ‘a territory may have boundaries of two kinds, external boundaries which delineate it, and internal boundaries which subdivide it’ (Peacocke 1983: 55). Our territory and Grice’s is that of the senses. And the question of how the senses are distinguished from one another is a question about the internal boundaries of this territory; it asks how the territory is subdivided— what determines its internal boundaries. I have mentioned in this section some of the ways in which it has been argued that these boundaries are determined. But there is also an external boundary question to be asked with regards to this territory. This question asks how senses are distinguished not from one another, but from other faculties that are not senses— what is distinctive about senses, in comparison to these other faculties. It is this external boundary question

that one might expect to have to answer if one is to deny that an alien faculty is a new sense in the second way pointed out by Grice, and alluded to in the first paragraph of this section. And it is with this external boundary question, or at least, with some version of it, that I shall be concerned in this thesis. In particular, I will be concerned with how the senses differ from bodily awareness, which we do not usually count as a sense.

2. Bodily awareness and the senses

It might be thought obvious that the boundary between faculties that are senses, and faculties that are not, coincides with that between faculties of perception, and non-perceptual faculties. Grice seems to have been of this opinion; at least, the circumstances that he identifies as those in which we would deny that some faculty was a sense are all those in which we would deny that it was a faculty of perception. We will have more to say about what these circumstances are shortly. Vision, touch, hearing, taste and smell are perceptual faculties. But on some views, the awareness we have of our bodies in proprioception, kinaesthesia, and when we have bodily sensations, is also perceptual. It is an interesting feature of the way in which we usually distinguish between senses and other faculties that we do not count bodily awareness amongst the former. In this section I want to argue that it is not obvious that if we accept a perceptual model of bodily awareness we are thereby forced to accept that bodily awareness is a sense. And this raises the possibility that the question of what is distinctive about the senses is not just that they are perceptual faculties, as Grice seemed to think.

One circumstance in which Grice argues that we would deny that some faculty was a faculty of perception is that in which we have reason to think that the faculty in question is a faculty for having sensations. It might be held that the faculty did not deserve to be counted a sense, Grice suggests, because its functioning,

...consisted in having some sort of experience generated by material things or events...by way of some effect on [the] nervous system, though it did not qualify as perceiving the things and events in question. (Grice 1962: 248)

When would we think of a faculty in this way? By way of illustration, Grice discusses the example of pain. Our experiences of pain are often experiences generated by the impact of objects and events on us. Nevertheless, such experiences do not count as experiences of those impacting objects and events. The pain caused by my touching the hot stove is not an experience as of the stove. I don't attribute painfulness to the stove, or as Grice puts it, I don't 'externalize' my pain. Does it follow from this that bodily awareness, such as pain, is not a form of perceptual awareness?

To start with, consider AD Smith's (2002) account of the phenomenal difference between, as he puts it, 'mere' sensation, and perceptual consciousness. On his view, when one has a perceptual experience, it seems to one as if the objects of that experience are distinct from one's experience of them. Such experiences are, we might say, *phenomenally objective*. An example of the kind of thing Smith has in

mind when using the term, ‘mere sensation’ is the ‘inner light show’ we experience when we have after-images, or press on our eyeballs through closed lids. On Smith’s view, sensations such as these differ phenomenally from perceptual experiences in that our sensations do not seem to present to us anything the existence (or occurrence) of which is distinct from our perceiving it. When we experience something like the inner light show, it doesn’t seem to us as if we are aware of something which would continue to exist unperceived.⁶ To be clear, this suggestion about the difference between mere sensation and perception is supposed to be entirely phenomenological. The claim is not that the objects of experience that seems this way *are* always independent of one’s experience, or that one can reliably tell that they are. It is rather a matter of how such experience characteristically seems— it *seems* to be as of things that persist when they’re not being perceived. The experiences of the proverbial brain in a vat, Smith suggests, could also have this kind of ‘perceptual’ phenomenal character. So on this view, perceptual awareness is, and mere sensation is not phenomenally objective.

Some philosophers have argued that bodily awareness, including bodily sensation, should be considered a form of perceptual awareness. I do not intend to provide an argument for this perceptual model of bodily awareness here. We will discuss it in more detail in the following chapters. But the thought that in bodily awareness, one perceives one’s body is an intuitive one. When one, for example, sees or touches an object, one’s experience is ‘directed onto’ things in the physical world that persist

⁶ This isn’t uncontroversial. It might be thought that to the extent that the experience we have when we have after-images is spatial, it does seem to be directed onto something that persists unsensed, namely, the apparent location of the coloured lights one seems to see.

whether or not they are perceived, and on Smith's view, that also seem to persist unperceived. And intuitively, this is true also of bodily awareness, including bodily sensations such as those of pain. Bodily awareness too, is phenomenally objective. Whilst, as Grice pointed out, we don't attribute pains to the objects that pain us, we nevertheless do attribute them to some mind-independent object, namely, our bodies. As Martin puts it:

When you feel an ache in your left ankle, it is your ankle that feels a certain way, that aches. Now ankles are no less components of the physical world than are rocks, lions, tables, and chairs. So at least to first appearance, bodily sensation is no less concerned with aspects of the physical world—in this case one's body— than are the experiences associated with the traditional five senses (Martin 1998a: 268).

On the view that bodily sensations are perceptual, one takes such sensations to be as they first appear. That is, on such a view, when one has a pain in one's foot, or pins and needles in one's hand, one is thereby aware of parts of some object, namely one's body. That's not to say that the features of one's body one experiences (its hurting, itching, warmth) are in all cases features that persist, or even seem to persist, unperceived. On some perceptual views, some of the qualities of which one is aware in undergoing bodily sensations are mind-dependent.⁷ But all who take bodily sensation to be perceptual agree that all bodily sensation is concerned with or

⁷ We shall discuss some differences amongst bodily sensations, and touch upon some of the differences there are amongst perceptual views of bodily sensation in Chapters 4 and 7.

directed onto one's body. This stands in contrast to a subjectivist view of bodily sensation, on which the experience of pain in my foot or of pins and needles in my hand is one that has, and perhaps also seems to have no object distinct from itself. On such a view, bodily sensations of pain, warmth, and so on, are 'mere' sensations, in Smith's sense of this term.

And one may hold the view that not just bodily sensation, but also bodily awareness more generally, including also proprioception and kinaesthesia, is perceptual. When I feel the relative location of my outstretched hands, or the movement of my fingers I thereby have an experience as of an object in the physical world, namely my body, that can persist unsensed. This is to be contrasted with the view that awareness of one's posture and movement has no 'experiential' element at all (see Anscombe 1981; Hamilton 2005). The awareness we have of our bodies, on this latter view, is a kind of knowledge without observation. We just *know*, without having any characteristic kind of experience that tells us so, whether, for example, our legs are crossed, or we are upside down. This kind of view goes along with the Wittgensteinian thought that our experiences of our body are never of it as object but rather, and exclusively, of it as *subject*.⁸

Now the point here isn't really to argue that a perceptual model of bodily awareness is correct, though I will assume, for the most part, that it is. Instead the point is that the perceptual model (even if it turns out to be wrong) is quite intuitive— after all, it

⁸ The view that our bodies seem to us, in all kinds of bodily awareness, to be objects in a mind-independent world, might be consistent with the claim that they *also* seem, in some respect, to be the subjects of experience. But I will have no more to say about that here.

takes bodily experience to be as it first appears to us. But nevertheless, as a matter of fact, we don't usually count bodily awareness as a sense. This suggests that even if we accept that bodily awareness is perceptual, this is not sufficient for us to count it as a sense. It might conceivably be both a perceptual faculty, and also not a sense. And given this, the question arises of just what it is that is distinctive about the five familiar senses that they do not also share with bodily awareness. It's my aim in this thesis to say what this distinctive feature is. And, as I point out in the next section, it is far from obvious what this feature might be.

3. Phenomenology and sense-organs

In this section I want to show that whilst we have certain expectations about what should turn out to be distinctive about the senses, it is far from obvious how or even if these expectations are to be fulfilled, particularly given that, as discussed in the previous section, we do not usually include bodily awareness amongst the senses. This, I hope, encourages one to think that there is a philosophical question here to which it is reasonable to seek an answer. At the end of this section (3.3) I summarise the answer I will give, in chapters 2–7, to this question. The first expectation we might have, which I will discuss in 3.1, is that what is distinctive about the senses will have something to do with the conscious character of sense-perception. The second, is that it will involve there being sense-organs involved in perceiving in the five familiar modalities (3.2). The account I will give in this thesis will fulfil these expectations.

3.1 Phenomenal character

We might expect that what turns out to be distinctive about the senses will have something to do with the phenomenal character of sense-perceptual experience, because of certain intuitions one might have about what makes something an instance of sense-perception. Firstly, it is intuitive that sense-perception is informative about the world. It's not of course that sense-perception is the only way we can find out about the world. I can perceive the tree outside my window with my senses, and I can also think about it, remember it, imagine it, or hear about it from others. All these other non-perceptual ways of being in some respect 'in contact' with the tree can, like perceiving it, be ways of finding out about it. And so the human faculties of thought, memory, imagination, learning from testimony and sense-perception can all be thought of as faculties we can use to find out about things in the world (which is not to say that there aren't or couldn't be any other such faculties too).

A second intuition that we have about sense-perception is that unlike these other faculties, it informs its possessor, as Grice suggests, 'only about conditions of the world spatially and temporally present to the creature' (1962: 148). If a faculty informed its possessor about conditions of the world other than these, we would deny, Grice suggests, that the faculty was a sense. Now, in some cases we see things not as they currently are, but as they were some, or even a very long time ago. Things as they are presently given does not always correspond to things as they actually presently are. For example, we take ourselves to see the stars, yet since they

are so far away, and it therefore takes some considerable time for light from them to reach us, we see them now as they were years previously. But we do not take from this that star-seeing is not an instance of sense-perception. So the point isn't that a sense can only be capable of informing us about how the world actually is at the time one perceives it. But it certainly seems right that sense-perception is nevertheless constrained by the state of, and the doings of its objects in a way that, for example, thought and imagination are not. If I look at a star for 30 seconds, and see it as it was for thirty seconds, say, 4.3 years ago to the day, then if, for example, it grew and then changed colour during that long-gone thirty seconds, then my seeing it now will be immediately responsive to those changes over the thirty seconds in which I see it.⁹ My thinking about it or imagining it, for example, exhibits no such sensitivity. During the same thirty seconds I can think about it disappearing or exploding, or imagine it to have shrunk, or even to have turned into something else all together. This condition also, as Grice writes, distinguishes sense-perceptual faculties from only 'dubiously informative' faculties such as that which we might call a moral sense, or a sense of humour. If these faculties tell us about anything in the world, they are not sensitive to the way those things are in the way that perception is.

A third intuition that we might have is that if something is to be an instance of sense-perception it must inform its subject about how things are in his environment, as it currently is, *because of the way his experience seems to him*. Intuitively, the

⁹ 4.3 years is how long it takes for light to reach us from the star that is next-nearest (after the sun) to earth, Proxima Centauri.

knowledge of the world acquired by means of anything that is to count as sense-perception must be at least partly causally explained by the conscious character of the *experiences* we have, in virtue of having these faculties. I know that there is an orange on my desk, because I can *see* it, which is at least partly to say that I have a visual sense-perceptual experience ‘as of’ the orange. We would not count as sense-perceptual a faculty by means of which one just finds oneself saddled with knowledge about the world without a corresponding experience on the conscious character of which that knowledge is in some way ‘based’. So, for example, when I see the orange on my desk, and so know that it is there, I have a characteristic visual experience the sensory aspects of which are the basis for my knowledge that the orange is there. Whereas I would count perhaps as ‘divining’ the presence of the orange on the table, if I just know it was there without having an experience the conscious character of which is in any respect the basis of this knowledge.¹⁰

There is much more that might be said about each of these intuitions than is required for our purposes here. My point, in this section, is that having these intuitions, we might expect that there will be something phenomenologically distinctive about sense-perception. Sense-perception informing us about the world spatially and temporally present to us, and our being thus informed being causally explained by the phenomenal character of sense-perceptual experience, we might expect there to be some aspect of the conscious character of sense-perceptual experience, that is

¹⁰ If one accepts that perceptual faculties must yield conscious sensory experience then one thereby rules out the possibility of modalities the functioning of which is wholly below the level of conscious awareness. Thus, the vomeronasal faculty posited by Keeley (2002) would not count as a sense- we may be able to detect hormone’s, and we might even allow that we gain some knowledge by our doing so, but we do not have conscious sensory vomeronasal experiences.

absent from all other cases. But it is far from obvious what this distinctive phenomenology might be. As discussed in the previous section, we do not usually think of bodily awareness as a form of *sense-perception*. So if there is something phenomenologically distinctive about sense-perception, it must be something that is not a feature of the conscious character of bodily awareness. And at the outset of our investigation, there are no obvious contenders for what this distinctive phenomenological feature might be.

3.2 *Sense-organs*

If we're looking for something that is distinctive of the five familiar senses, and in particular, something that they do not share with bodily awareness, it is likely that the presence in the one case, and the absence from the other of sense-organs will come to mind. It is intuitive that whatever the answer is to the question of what is distinctive about the senses, it will have something to do with their involving sense-organs. As Grice suggests, we might think we would deny that some faculty was a sense if the possessor of the faculty

...seemed to have direct (non-inferential) knowledge of certain contemporary states or events in the material world, though this knowledge was not connected with the operation of any sense-organ (*ibid.*)

The problem with this suggestion, intuitive as it may be, is that it looks to be very difficult to give conditions under which a part of the body counts as a sense-organ.

It's this difficulty that rules out the sense-organ criterion as an answer to the question of how the senses are distinguished from one another. A specific problem is that it's very difficult to say what the organ of touch is, since there is no single part of the body that seems to play in touch a role analogous to that which the eyes play in vision. This is why Armstrong (1993) suggests that we should avoid reference to sense-organs in analyzing the notion of perception.¹¹

More generally, it is difficult to specify criteria by means of which to identify sense-organs in a way that corresponds to the way we usually identify them (See also Chapter 3, section 1). For example, we might think that, as Kenny puts it, a sense-organ is 'a part of the body which can be moved at will in ways which affect the efficiency of the sense in question' (1963: 57). Without further constraints, by this criterion, one's whole body might count as a sense-organ, since I can affect the efficiency of a sense (in fact, of all my senses) on a given occasion by moving my whole body around. I can move to a dark place so as no longer to see, for example, or I can move away from the source of a sound so as no longer to hear the sounds it makes. And it will not help, as we might expect it to, to try to identify sense-organs naturalistically, in terms of physiological or psychological mechanisms involved in perception in each modality. For one, As Nudds (2003) points out, there are many more such mechanisms than we usually count sense-organs. And more importantly, for our purposes here, bodily awareness too involves the functioning of such mechanisms, no less than the five familiar senses do.

¹¹ We will see in Chapter 4 that a minimal notion of a sense-organ is applicable to touch.

So, we have then a distinction that we usually make, between senses and other faculties, including bodily awareness. This prompts us to raise the question of what underlies this distinction— of what, if anything, is distinctive about the senses, and correlatively, about sense-perception. And, furthermore, we have some intuitions or expectations about how this question ought to be answered that, as we have seen, are not easily met. This, I hope, encourages one to think that this is a question with some intrinsic interest, to which it is reasonable to look for an answer. The account I give, in the following chapters, of what is distinctive about the senses, allows the expectations discussed in this section to be met. In the next subsection I summarise this account.

3.3 The answer

I will argue that what the senses have in common which they do not share with bodily awareness are enabling and defeating conditions of a certain kind. These enabling and defeating conditions are manifest in the conscious character of sense-perception: this is what is phenomenologically distinctive about the senses. And these conditions, which are thus manifest to us, are also exploited in active perceptual attention— in looking, listening and the like. In Chapters 2 and 3 I argue that vision has, and bodily awareness lacks enabling and defeating conditions of the relevant kind. Chapter 2 is concerned with the way in which enabling conditions are manifest in vision, and Chapter 3 with their exploitation in looking. In Chapters 4, 5 and 6 I argue that though touch, hearing, taste and smell differ from vision in various ways, enabling conditions are manifest in the conscious character of perceiving in

these modalities too, and exploited in actively feeling, listening, tasting and smelling.

There being enabling conditions of this kind, I will suggest, is what is right about the expectation that what is distinctive about the senses has something to do with their involving the use of a sense-organ. For one, it's in the exploitation of the enabling conditions in perceptual activity that the sense-organs are put to use. Bodily awareness (including bodily sensation, proprioception and kinaesthesia) has no such enabling conditions. And given certain distinctive and important functions that bodily awareness has for us human perceivers, I will argue, it is a very good thing that bodily awareness differs from the five familiar senses in this way. (See Chapter 7, section 2).

Now, one might also think that the feature identified as distinctive of the senses ought to be in some way 'significant' to our grouping together the faculties we do as senses. If we are to accept that involving enabling conditions of the relevant kind is truly that which is distinctive of the senses, and not merely something that the senses happen to have, and bodily awareness happens to lack, we need to say what this significance is. I will not have much to say about the significance of the feature until the final chapter of the thesis. In the final section of this introduction I want to discuss what sort of significance this ought to be, and make some anticipatory comments about the way in which, I will argue later, the feature identified is thus significant.

4. Significance

If we are to say what it is in virtue of that senses are to be distinguished from other faculties, it will not be enough to have identified a feature that the five familiar senses have, and bodily awareness lacks. What is required in order to answer the question is a feature that is in some way significant to our grouping together seeing, touching, hearing, tasting and smelling, as instances of a single kind of thing and excluding bodily awareness from this grouping.

A feature might conceivably be significant to our counting the faculties we do as senses if its possession were necessary and sufficient for a faculty to be a sense. I will not argue that possessing enabling conditions of the relevant kind is necessary and sufficient for being a sense. This is not for lack of ambition, but because it seems to me that we might easily have called other faculties, including bodily awareness, senses. Thus, we might suspect that when we group together those faculties we call senses, we are not grouping together instances of a natural kind. This being so, our task in answering the question of what is distinctive about the senses is not one of uncovering or discovering a natural kind. As such, we will not expect to find conditions necessary and sufficient for some faculty to count as a sense, or for something to count as an instance of sense-perception. But from the senses not being a natural kind, it does not follow that our grouping them together is arbitrary or capricious. To see this, it is helpful to look at Matthew Nudds' answer to the internal boundary question— the question of how the senses are distinguished from one another.

Nudds argues that we should think of the distinction we make between the senses as a distinction between 'ways of perceiving'. A way of perceiving, he writes, is 'just the conditions that have to be satisfied for us to perceive something' (2003: 45). There are many such conditions: physical conditions, such as the presence of light, psychological conditions 'having to do with the proper functioning of various sensory processes' and what Nudds refers to as 'relational' conditions, such as being pointed in the right direction, or near enough to the object of perception (2003: 47). And there are 'as many different ways of perceiving as there are ways of individuating the conditions necessary for perceiving something' (2003: 45, n.30). Our distinguishing between five such ways of perceiving, Nudds suggests, is not a distinction between natural, psychological kinds, as it is assumed by the proponents of the views about how to distinguish the senses discussed briefly above, in section 1, that it is. Those philosophers who argue that the senses should be distinguished in terms of, for example, the features we become aware of by means of them, or the conscious character of the experiences they yield, try to answer the question of how the senses are distinguished by 'locating some appropriate distinction in nature corresponding to that we make between the senses' (2003: 47), a 'distinction in nature' being, Nudds writes, 'at least a distinction which exists independently of our practice of making it' (2003: 47, n.32). Nudds suggests that the distinction between senses is not, in this respect, a 'natural' one. After all, we might have individuated ways of perceiving in many different ways, other than the way we do.

Though, on Nudds' view, the distinction between the senses is not a 'natural' one, it is not one that we are wholly capricious in making. For it is constrained by the significance that the distinction has for us. On Nudds' view, an answer to the question of how the senses are distinguished must not just be extensionally adequate— it must also 'be able to explain the explanatory significance of the distinction' (2003: 43). It must be able to explain what knowing that something is seen as opposed to heard, or touched, as opposed to smelled, adds to knowing merely that it is perceived. What, Nudds argues, knowing that some object *o* was perceived in a particular modality adds to knowing merely that it was perceived, is being in a position to know what *someone else* is likely to come know about *o*, due to their having perceived it in that way. For example, if some third person who I am observing touches the book on the desk, she is likely to come to know about its shape and texture. Whilst, if she sees the book, she is likely to come to know about its shape, but also its colour, and so on. Which features of the book she comes to know about will, as Nudds writes, 'have consequences for her judgements and actions' (2003: 45). And this is why it is useful for me to know in which modality she perceived what she perceived— because it is 'potentially explanatory of her behaviour' (*ibid.*) in a way that merely knowing that she perceived the book is not.

If this is the significance that the distinction between the senses has for us, then it places various 'pragmatic constraints' on how we individuate ways of perceiving, constraints that may even, Nudds suggests, 'be sufficient to determine a unique distinction' (2003: 48). We will only distinguish between ways of perceiving that

are informative to us, with respect to our interest in predicting and explaining other people. Thus the conditions distinguished ‘must be differentially correlated with a significant difference in what is likely to be perceived’ (*ibid.*). And in addition,

...there is no point in making a distinction for the purposes of telling what people are likely to perceive if we cannot actually *tell* or *detect* which way they are perceiving something (2003: 49)

So we will distinguish between ways of perceiving in a way that picks out sets of conditions that are such that we can easily tell whether or not they are met. I cannot tell, for example, whether various underlying psychological conditions for perceiving something, on a particular occasion, are met. But I can tell, by and large, whether or not someone has tasted something or seen it, for example— because I can see whether they are, for example, facing the thing with their eyes open, or holding the thing in their mouth.

If Nudds is right, the distinction between the senses is in some way ‘interest relative’. Other philosophers who have addressed the question of how the senses are distinguished from one another, can be seen as having attempted to make the distinction relative to other interests than those Nudds identifies, and in particular, relative to ‘scientific’ interests. Thus, Brian Keeley’s avowed aim is to make the distinction between the senses ‘scientifically useful’:

To the extent that philosophy of psychology is a branch of philosophy of science, the notion of the senses as differentiated from one another is a core notion in perceptual sciences; a scientific assumption requiring philosophical justification (2002: 8).¹²

And in justifying this ‘scientific assumption’, Keeley’s avowed aim is to provide an account that will distinguish between senses other than the familiar five. Some psychologists having gone so far as to postulate thirty-three human senses (see Durie 2005)— the human faculties amongst which Keeley intends to distinguish include faculties additional to the familiar five. And Keeley also intends his account to be able to distinguish between non-human senses, such as the proposed thermal sense of the pit-viper, and the electric sense of some sharks, as well as imaginary senses, such as those of aliens. If Nudds is right, and the distinction between the five familiar senses is in some respect relative to an interest we have in predicting and explaining others’ behaviour, then we might suspect, as Nudds does, that philosophers such as Keeley who give a ‘scientific’ account of the senses have simply ‘changed the subject’. As Nudds puts it, ‘whatever it is they are giving an account of, it’s not the senses as we commonly understand them’ (2003: 35 n. 12).

The important point, for our purposes in this section, is that on Nudds’ view, it is the very interest to which the distinction is relative that makes the distinction, though ‘conventional’, in that it is not a distinction between natural, psychological kinds, not wholly capricious, or arbitrary. I have said that I will not argue, and that we do

¹² See also Nelkin 1990.

not expect, that the feature identified as common to the senses will provide necessary and sufficient conditions for the correct application of the concept of sense-perception. Nevertheless, if the feature is truly to be thought of as that which is distinctive of the senses, it must not be one that the senses just happen to have, and bodily awareness just happens to lack. If it can be shown that our grouping together the faculties that have this feature is something that it is intelligible that we should do, given our contingent human interests, then it will have been shown that possessing the feature identified is not incidental to our grouping together the senses in the way that we do. This is the sort of ‘significance’ that I will argue, in Chapter 7, that the notion of sense-perception has for us. It *is* conventional, in some way, that we think of the things we do —things that have the feature identified— as being instances of sense-perception. It is conventional, in that it could have been otherwise— and it would have been otherwise if, for example, our interests had been different. But given certain interests that we humans do in fact have, we can see why it would serve those interests for us to group the senses together in the way that we do.

Chapter 2: Visual enabling conditions and the visual field

In order to identify that which is distinctive to the senses, we need to consider how it is, assuming bodily awareness is a perceptual faculty, that it differs from the five familiar modalities. This is what I do in the following five chapters. In the current chapter and the next, I argue that vision and bodily awareness differ, in that vision has, and bodily awareness lacks, enabling conditions of a certain kind. These enabling conditions are manifest in the conscious character of seeing, and exploited in active visual attention, that is, in looking. There are no enabling conditions manifest in bodily awareness, and exploited in attention to one's body. In this chapter, I give an account of the aspect of visual phenomenology that makes manifest to us an enabling condition for seeing. In the next, I describe how we exploit our grasp of the condition in looking.

Mike Martin has argued that vision has, and bodily awareness lacks, a *field*. I argue in this chapter that the aspect of visual phenomenology that makes manifest to us a certain visual enabling condition is that in virtue of which there is a visual field, in Mike Martin's distinctive sense of the term. So, much of the discussion of this chapter will be involved in making clear just what it is about vision that gives it its field-type character. That in virtue of which there is a visual field, I will suggest, is a structural feature of visual experience that is involved in our seeing empty space. In describing this feature, and the way in which it is a structural one, I make explicit the role that seeing empty space has, implicitly, in Mike Martin's account of the visual field.

In the first section I introduce Martin's rather distinctive notion of the visual field. This will prevent confusion with other philosophical uses of the term, and also—I hope—forestall some possible objections to what follows. I will argue that we should make sense of the claim that vision has a field, thus understood, in terms of our being aware of its limitations, or boundaries. The boundaries of the visual field, I suggest, are our own sensory limitations, and we are aware of them as such (sections 2 and 3). We are aware of them in that vision has a certain structural feature that is also involved in our seeing empty space. Some philosophers have denied that we perceive absences (section 4), yet it is intuitive that we see empty space, and that we don't just see *that* space is empty (sections 5 and 6). I suggest that one reason for denying that we see empty space might be the neglect of structural features of perceptual experience, since we need to appeal to just such a feature to get right the way in which we see empty space, but are not aware of empty space in bodily awareness. In section 7 I argue that vision having this structural feature makes manifest to us an enabling condition for seeing.

1. What is 'the visual field'?

For Martin, to say that vision has a field is to allude to certain features of the phenomenology of visual experience. These are features which 'can be identified independently of a commitment to any specific theory of perception' (1992: 198).¹³ Thus, in his use of the term 'the visual field', Martin does not commit himself to a sense-datum theory of vision. The visual field, as the term is used by some

¹³ Although see n30 below.

philosophers, such as O'Shaughnessy, denotes a field of mind-dependent sensation. This sense of 'the visual field' is not Martin's.

On other accounts, too, the notion of the visual field is introduced as a matter of features of the phenomenology of visual experience. For example, some philosophers, without committing to a sense-data theory of perception, have used the term 'visual field' to denote features of experience in virtue of which we might identify some aspect of its conscious character as corresponding to a two-dimensional array. For example, when we perceive two trees of equal height, one closer to us than the other, there is a sense in which, as Peacocke puts it, 'the nearer tree occupies more of your visual field than the more distant tree' (Peacocke 1983: 12). This type of experience, he argues, is fixed by the condition that on a plane perpendicular to the perceiver's line of sight, a larger area of the plane would have to be made opaque to obscure the nearer tree than the farther (1983: 18).¹⁴ For Boghossian and Velleman, the notion of 'location in the visual field' is required in order to account for the way in which certain phenomenal items, such as after-images, appear to occupy locations without appearing to be *in* those locations, amongst the other objects we can see: 'the after-image is like a coffee-stain on a picture, a feature that occupies a location on the picture without representing anything as occupying that location' (1989: 93).¹⁵

¹⁴ The notion of the visual field, in this sense, is introduced by Peacocke (1983: Ch1) as part of his argument for there being not only representational, but also sensational properties of perceptual experience.

¹⁵ Boghossian and Velleman, like Peacocke, take the features of visual experience the notion of which the visual field is introduced to explicate to be non-representational. Their discussion of the visual field occurs in the context of an argument for the projective theory of colour perception. For Gibson, the visual field is similar in being 'picture-like phenomenal experience at a presumptive phenomenal

The phenomenological features of visual experience that the notion of a field is invoked by these philosophers to explain are not the features with which Martin is concerned. What then are these features? The visual field, Martin writes, delimits, (sets the boundaries of) a cone of physical space which is somehow ‘part of visual experience’. This cone has its apex where our eyes are. To the left, right, up and down are diverging boundaries which are joined by a boundary that forms the base of the cone. We can see things that are very large and bright, such as stars, at extraordinary distances. Though we are poor at judging how far away from us, and from other things such things are, we nevertheless see them. So, at least on the face of it, the base of the cone is, or can be extremely far away— I will return to this point later. The phenomenological features with which Martin is concerned in his account of the visual field have to do with this cone’s presence, in some way, in visual experience. I think we can make best sense of this notion of the visual field in terms of the claim that we are in some way aware of the cone-shaped boundaries or limitations of the visual field. Vision has a field, in this way, in that we are aware of its boundaries in visual experience. I shall discuss our awareness of the boundaries or limitations of the visual field more in the next section. Before doing so, three points are worth emphasizing.

distance from the eyes’ (1989: 151). But for him, the visual field is not part of ordinary visual experience, or (as some would have it) its basis, but ‘an alternative to ordinary perception’ (151) that depends on one taking what he calls a ‘pictorial’ attitude (149); the attitude a painter takes to his subject.

First, vision having a field is not *just* a matter of visual experience seeming to be ‘from somewhere’. Visual experience is ‘egocentric’ in that we seem to see the things we see from where we are. In virtue of the apex of the cone of space delimited by the visual field being where our eyes are, we seem to see the things we see roughly in relation to where our eyes are. And if there were no such point of origin for visual experience, there would not be a visual field. But to say that vision has a field is not just to say that there is a point of origin present in visual experience. It’s to say that the boundaries or limitations of the cone, the apex of which is the point of origin for visual experience, are present in visual experience.

Secondly, in this sense of the visual field, it is not to be *identified* with a region of physical space. Rather, it *delimits* —fixes the boundaries— of some such region. When I move my gaze, I change what falls within the limits fixed by the visual field, but I do not change the field itself. I take my visual field with me, as it were, as I go about.

Thirdly, the space the visual field *delimits* is not the space containing everything I see at a time. Another, different notion of the visual field is that of the field of view. This notion of the visual field is probably the closest to the everyday, non-philosophical use of the term (to the extent that there is any such use), and is the first of the three varieties of visual field considered by Austen Clark (1996).¹⁶ The field of view is the sum of physical phenomena seen at a time:

¹⁶ The first, which he attributes to Boghossian and Velleman, being an array of impressions. The third, not discussed here, is ‘the world as represented visually’ - an intentional object (Clark 1996: 7).

The field of view is a large three dimensional physical phenomenon. It might be several miles deep. Its size and shape is determined at time t by the physical position of the head and eyes. With one's head in a closet, the field of view dwindles considerably. Turn off the lights and it dwindles to nothing. But as long as one is seeing something, there exists a sum of things seen: a field of view (1996: 2).

The space the visual field delimits contains unseen regions. This is particularly important to bear in mind if the account of the visual field offered here is to be acceptable. As Martin makes clear in his account, the visual field includes regions of space at which nothing is currently seen due to occlusion (1992: 199) or darkness (1993: 214). If it is thought that that with which we are concerned is the field of view, then the claim that the visual field contains locations that are currently unseen will seem preposterous. On Martin's view, with my head in a closet, my visual field does not dwindle, though my field of view does.¹⁷ The visual field includes the spaces and objects beyond the walls of the room and even the building I'm in.¹⁸

Having distinguished Martin's notion of the visual field from some other uses of the term, in the rest of this chapter (and also in other chapters), I'll use the term in

¹⁷In the case of ganzfeld phenomena, such as snow-blindness or the experience of pilots at high altitude, the visual field does dwindle to nothing- all visual experience is extinguished. Whether the same is true of darkness is contentious (see Sorenson 2008).

¹⁸It's not clear that this part of the account is obligatory, particularly given the account of the visual field given here. One could accept that we are aware of our sensory limitations in that it always seems as if there is more to be seen than is currently seen, and still insist that the visual field does dwindle with one's head in a closet- after all, it would certainly seem, in such a case, that there was more to be seen than was currently seen.

Martin's sense. I will argue that vision has a field, thus understood, in that we are visually aware of the cone-shaped boundaries of the field. In the next section I consider what these boundaries are, and the way in which we are aware of them. We will see later in this chapter that the way in which we are aware of the boundaries involves vision having a structural feature that makes manifest to us an enabling condition for seeing.

2. Boundaries and limitations

What sort of notion of a boundary or limitation *could* be in play here, such that we can make sense of our being aware of these limits in visual perception? One way in which we are aware of limits or boundaries is the way in which we see the outer edges of physical objects. We might think that we are aware of the limits of the visual field in something like this way— that we can see its outermost edges, the boundaries of a cone-shaped region of space.

I don't think this is the way in which we are aware of the limits fixed by the visual field. Firstly, the outermost edges of this space are more often than not beyond occluding objects; the walls of rooms, other buildings, and so on. So it's just not true, usually anyway, that the limits fixed by the field are things we're aware of in this way. Secondly, if we consider what's involved in being aware of the outer edges of physical objects, it is clear that we *could not* be aware of the limits of the visual field in this way. When I see the outer edges of objects, I see them as bounded within a space that extends beyond them, which I also see (or at least, that's the

claim I'm making here). I am aware of the boundaries of the cup on my desk, for example, in that I pick the cup out as a figure against a background of other seen things. My awareness of the limits fixed by the visual field cannot be like this, because the limits fixed by the visual field, whatever else they are, are the limits beyond which nothing can be seen, without changing what falls within these limits by moving one's gaze. The limits fixed by the visual field are not then the limits of an object of awareness that I see, bounded within a space that extends beyond it. And I am not aware of the limits fixed by the visual field in the way in which I am visually aware of the limits of such objects.¹⁹

What then are these limits, and in what does our awareness of them consist? My claim is that the limits are our own visual sensory limitations, and that we are aware of them as such. We are aware of our visual sensory limitations in that it always seems to one that there is more to be sensed than one is currently sensing. It seems as if the space delimited by the visual field, is a sub-region of a larger space which has that region as a sub-region. By way of clarification, this should not be thought of as meaning that it always seems to you that you could see further than you currently can if only the objects weren't in the way. The claim is that on a cloudless day, looking out to sea on a deserted beach, it would still seem to one that there was more to be seen than one currently could see. It would still seem to you that way in outer space. One is aware of the limits fixed by the visual field in the sense that the space it delimits seems to be limited. It seems, always, as if there is more to be seen,

¹⁹ Cf. Sorensen forthcoming. He remarks that the limits of the visual field, like the vanishing point, are not objects of vision.

beyond these limits. And it is not just that we know there is more to be seen than what we do in fact see. There being more is something that is manifest to us in the phenomenology of experience. This, perhaps, is what Kant meant by the claim that space is an ‘infinite *given* magnitude’ (A25/B40). In this rather elusive claim, as Gardner suggests:

Kant does not mean that we perceive space as an infinite whole, which we obviously do not, but that space is given to us, first, as unbounded (we cannot represent the end or edge of space; behind any space, more space lies). (1999:79)

It is worth noting that the boundaries of the visual field of which we are aware are not all alike. Human perceivers do not have 360 degree vision. On all sides of the cone apart from the base, there is a fairly obvious boundary beyond which nothing, no matter how bright or large, can be seen. The base of the cone is different. In the ‘straight ahead’ direction we can see large objects such as stars, given the right illumination conditions, that are very far away indeed. Nevertheless, even in this direction, it seems to us that we can only see so far— that we are limited, sensorily. For example, we are aware of things, such as aeroplanes and birds, flying out of view, beyond where they can be seen. We might think of the visual field as a kind of ‘net’, the ‘holes’ in which grow larger with distance.²⁰ (We will return to this in Chapter 5.)

²⁰ I am grateful to an anonymous referee for the *European Journal of Philosophy* for this suggestion.

Now, in order to understand the way in which our awareness of the limits fixed by the visual field is awareness of our *sensory* limitations, it is useful to compare this kind of awareness to a third kind of awareness of limits that we have not yet considered. This is the awareness we have of the limits of the body, in bodily awareness. On Martin's account, whilst there is a visual field, there is no bodily field. We can understand this difference, I think, in terms of the two different kinds of awareness of limits involved in each case. There is a field in vision, in that we are aware of our sensory limitations. There is no field in bodily awareness, in that we are not so aware. What we are aware of in bodily awareness, are the limits of an *object*, namely, our bodies.

As we said in Chapter 1, Martin holds a perceptual model of bodily sensation. And as we saw there, on this model, what you are aware of when you feel a pain in your hand, is not a purely subjective state, but your hand, hurting. You are aware of a quality of some object in the world, namely, that part of your body which hurts. Furthermore, for Martin, bodily sensation (when it feels to be located), is intrinsically bodily. The object in which you feel the sensation, feels to be part of your body. 'Wherever a sensation feels to be located', writes Martin, 'one's body feels to extend to at least that point in space' (1993: 210). Thus, if one experiences bodily sensations at locations that are not internal to one's body, such as a pain in a phantom limb, so one experiences an illusion with respect to the extent of one's body.

In order for bodily sensation to have this quality of appearing internal to one's body, it must incorporate a contrast with external to the body. And, as Martin points out, this contrast cannot be:

...a positive quality over and above the qualities and location of sensation, [for] then it would be conceivable that sensations should lack this feature, and also conceivable that sensations could have the opposite feature of "falling outside of one's boundaries" (1998a: 271).

And this is not conceivable, or at least, not conceivable for creatures whose bodily experience is like ours. We cannot conceive of feeling a sensation to be located, but external to the body, as O'Shaughnessy has argued (1980: Vol. 1, 162). How then does bodily sensation have its bodily character? To say that one feels one's sensations to be internal to one's body, can also be seen, as Martin says, as 'one feeling one's sensations to be located within one's boundaries' (1993: 212). So the key to the bodiliness of bodily sensation is awareness of one's bodily boundaries or limitations.

This awareness though, like our awareness of the limits of the visual field, is not like the awareness one has of the outer edges of seen objects. One is not aware of the outer edges of one's body by picking it out, in bodily awareness, as a figure against a background of other objects and empty space of which one is also, bodily aware. One is aware of one's boundaries, on Martin's account, in that one is aware of one's

body as in a space ‘that extends beyond whatever one does feel’ (1998: 271). So that in virtue of which any location at which one feels a sensation feels to fall within one’s boundaries, is one’s awareness of the limits or boundaries of one’s body in the following sense:

...wherever one does feel a sensation, to be located, one [also has] a sense that the world must extend beyond that point, the world beyond extending beyond one’s limits being composed of regions of space which one couldn’t at this time be feeling a sensation to be located in (1993: 212).²¹

Hence, it is necessary that one does not feel that one’s body is all there is: ‘that one’s body might simply extend to encompass the whole world, or the world apparently shrink to the limits of one’s body’ (1993: 212).

Now, I have argued, above, that it is also true of vision that it always seems to one that there is more space than that which is currently delimited by the visual field. In this sense, we are aware, in vision, of our sensory limitations. Yet the awareness we have of the limits of our body, in bodily awareness, though it also implies that there is necessarily more space than that in which we feel our body to be located, should not be understood as awareness of any sensory limitations. In this kind of awareness of limitations, though it is different to one’s visual awareness of the outer edges of objects in the above-noted ways, what one is aware of are the limits of some *object*,

²¹ The awareness we have of our bodily boundaries is to be understood as a matter of a structural feature of bodily awareness. I will return to this point in Chapter 4.

namely, one's body. One couldn't feel a sensation at a location beyond one's boundaries not because one is limited, sensorily, but because that's how far the boundaries of the sole object of that awareness of reach. One might bemoan the limited reach of the limits set by the visual field, wishing that one could see further. Such a complaint would not make sense in the case of bodily awareness— what one would be wishing for would be to be larger than one is, not to feel further, beyond one's boundaries. Vision has a field in that we are visually aware of our sensory limitations. Bodily awareness lacks a field in that the limits we are aware of in bodily awareness are those of the object that is our body (albeit 'from the inside' and so not in the same way as we are aware of the outer edges of objects). But in what does our awareness of our visual sensory limitations consist? I will argue, in the following sections, that it consists in a feature of experience that is involved in seeing empty space, and that this feature is a *structural* feature of visual experience. In the final section of the chapter I will argue that this structural feature is that in virtue of which an enabling condition for seeing is made manifest in the conscious character of visual experience.

3. Is perception 'positivity all the way'?

Many philosophers have argued that we don't perceive any absences. Amongst them is Brian O'Shaughnessy. Perception, he claims, is invariably of presences, it is 'positivity all the way' (2002: 334). In this section I introduce the claim that there is no perception of absence, and the contexts in which it is made. Whilst the topic of the perception of absence is one with its own intrinsic interest, I include this

discussion here because, I want to argue, one reason why it might be denied that certain absences, such as empty space, are perceptible, is if one neglects structural features of perceptual experience. And it is a structural feature of visual experience, and one that is involved in our seeing empty space, that I want to argue makes manifest to us a visual enabling condition.

O'Shaughnessy argues against our perceiving absences in the context of distinguishing perception from thought. In his view, perception differs from thought in not having propositional objects and, concomitantly, not being truth-evaluable. Thoughts, he writes, 'being conceived under the aspect of truth, can as readily take negative as positive propositional objects' (2002: 331). Perception, not taking propositional objects at all, cannot take negative propositional objects—we cannot perceive something not to be the case. The objects of perception, not being propositional, are, O'Shaughnessy says 'objective phenomenal realities like material objects, or colours, or relations, none of which are capable of truth-values' (2002: 328).

O'Shaughnessy allows that some experiences of absence, such as that of silence, are not equivalent to an absence of experience—the deaf, he acknowledges, do not experience silence. But the experience the hearing have and the deaf lack is not 'hearing silence' but 'hearing *that* it is silent'. In denying that perception takes propositional objects, O'Shaughnessy does not deny that 'hearing that...' or 'seeing that...' are possible. But perceiving *that* something is the case involves the

possession of a cognitive attitude, such as belief. Thus experiences of absence such as hearing that it is silent, on O'Shaughnessy's view, require a cognitive attitude with the content that the relevant absence obtains, in this case, that it is silent.²²

I don't want in this chapter to consider the merits of O'Shaughnessy's argument for the claim that there is no perception of absence. My concern is rather with the plausibility of the claim itself. O'Shaughnessy is not alone in claiming that there is no perception of absence, though others have made the same claim for different reasons. Demos writes that negative objects, such as absences, 'are not to be found in experience' (1917: 195). Bertrand Russell, like O'Shaughnessy, emphasizes the role of the possession of certain cognitive attitudes in the perception of absence, suggesting that 'perception only gives rise to negative judgement when the correlative positive judgement has already been made or considered' (1948: 138). Another reason, other than O'Shaughnessy's, for these denials of perception of absence is the thought that absences and omissions cannot be causes, and thus, since perception is causal, cannot be perceived.²³ More generally, there is some discomfort with the idea of the existence of negative facts, or even more generally, of negative things. It is felt that not only perception, but also the world that is perceived, is 'positivity all the way'.

²² On O'Shaughnessy's view the experience of silence is a cognitive experience of 'coming to know that it is silent' (2002: 329). For a different view, see Sorensen 2008, Chapter 14 and Phillips forthcoming.

²³ Not everyone considers absence causation to be problematic. See, for example Mellor 1995; Lewis 1986; Schaffer 2000. For discussion of absence causation in perception see Goldman 1977 and especially Sorenson 2008.

I do not intend to give any account at all here of the metaphysics of negative things. And nothing said here about seeing empty space is supposed to provide a general account of the perception of absence. It is with the particular perception of absence that is seeing empty space that I am concerned here, because, I will argue, it involves a structural feature that is that in virtue of which vision has a field, and bodily awareness does not, and which makes manifest to us a visual enabling condition. In the next section I suggest that, contra O'Shaughnessy, it seems rather obviously characteristic of vision that we see not only objects and the like, but also the empty space around and between them.

4. Seeing empty space

What's meant by the claim that we see not only objects and the like, but also empty space? It cannot be just that the objects seem to be a certain distance in space from one another, and from myself. Things can seem to be a certain distance apart if the space between them is partly or even wholly occupied. I can see two bookends, for example, and they seem to be about a foot apart, even if the foot of space between them is entirely occupied by books.²⁴ So their seeming to be thus parted does not in itself imply that we see empty space. And seeing empty space does not entail that the space seen is entirely empty. The space between my bookends is not a vacuum or a void. I will return to this point later, in section 6.

²⁴ I can't see an object to be a certain distance from myself if the space between me and it is occupied by occluding objects, but that's another matter.

What's important is not merely our seeing the distances between objects, such as bookends, but that visual experience is not neutral as to whether the space between the bookends is occupied. In this, it differs from bodily awareness, as Mike Martin has pointed out (for example, 1998a: 271). In bodily awareness, there is no direct analogue to our seeing empty space. If you hold your hands out in front of you about a foot apart and close your eyes, you are aware of the relative locations of your hands, as I am the relative locations of the bookends. And it does not seem to you that your hands are only related 'through' the space occupied by your body. They seem to be next to each other, a certain distance apart, in the space in front of your body, and which your body does not occupy. But your bodily experience as you hold your hands out, unlike my visual awareness of the bookends *is* neutral as to whether the space between them is occupied or unoccupied. If I were to place a stack of books between your hands, without your hands touching the books, your bodily awareness of your hands would not change. The presence or absence of the books makes a difference to my visual experience, as it does not to your bodily experience.

Another way of putting much the same point is that there is a difference from within visual experience between absence of visual experience at some place and experience of 'nothing there'— of empty space. This is brought out by reflecting on what are, at least on the face of it, examples of localized absence of visual experience. In such cases, our relation to certain regions of space is comparable to our relation to the space between our outstretched hands in bodily experience. This serves to highlight the sort of case in which we're interested here, in which bodily

awareness and vision are not thus alike. When a very bright light is flashed into your face, the retinal cells onto which the light is focussed are temporarily bleached. For a moment, the cells are, as Austen Clark puts it, ‘out of commission’ (1996: 4). At the location in space from which reflected light is focused onto these cells, nothing, briefly, can be seen. As the cells recover, the experience is that which we characterize as an ‘afterimage’. During that brief period when the cells are out of commission, we have a temporary blind spot— a location at which there is an absence of visual experience.^{25, 26}

We can imagine there being for me a blind spot of this kind of such a shape and size as to fit precisely the space between the bookends. I still, in this case, see the bookends, and I am still aware of the distance between them. But now my visual experience is comparable to your bodily experience of your hands. The presence or absence of the books between the bookends will make no difference to my visual experience— I do not see the space between them. Now, I have a lack of experience with regards to the region of space between them. This imagined case, in which I have a complete lack of visual experience of the space between the bookends, is different from the case in which I have a visual experience of ‘nothing there’ between them. In one case, there is no experience. In the other, there’s an experience of absence— of empty space.

²⁵ This is not of course a blindspot in the sense of the one that we all have and rarely notice.

²⁶ Other ways of understanding the temporary blindspot are available. For example, one might think of it as a hallucination of darkness- this was pointed out to me by an anonymous referee for the *European Journal of Philosophy*. However, it seems to me implausible that one would describe one’s experience in the case described here as being ‘as of’ darkness. In any case, this response would not be available to someone who thought there was no perception of absence, unless, as O’Shaughnessy does, they were to deny that seeing darkness is a perception of absence.

5. Seeing *that* the space is empty?

Still, you might say, seeing empty space may not be equivalent to the absence of visual experience, but nevertheless O'Shaughnessy is right: I see only *that* the space is empty. And this requires a belief with the content that the space between the bookends is unoccupied. Is this right? I don't think it is.

I don't want to deny that there are cases of perception of absence for which there are good reasons to claim that the possession of some such cognitive attitude is required. It seems implausible that one could, for example, have an experience of a cat's not being blue without a corresponding belief or other cognitive attitude with the content that the cat is not blue. What one would have in such a case would be, plausibly, a positive perceptual experience of the cat's being, say, brown, and thus, perhaps in the context of an expectation that the cat would be a blue one, a belief that it's not.²⁷

Others too have emphasized the role of cognitive attitudes in perceiving absences.

Consider the two circles below:



²⁷ Though on approaches to the admissible contents of perceptual experience at what Tim Bayne has called the 'conservative' end of the spectrum, the property of being a cat is not perceived either. The idea here is just that the cat not being blue is something that only an uber-liberal would allow into the content of experience, whilst space being empty, in contrast, should be admitted by all but the most conservative.

We see the circle on the left to have a dot in it. And in some sense, we see the absence of a dot from the circle on the right. In Molnar's view, we *infer* the absence of the dot from 'the perception of the circle and the failure to perceive the dot'. Our seeing there to be a dot in the circle on the left, on the other hand, involves no inference: 'there is no perceptual datum from which such an inference could be drawn except the fact of the dot's being in the circle itself' (2000: 79). And, Molnar suggests, whilst it may in some sense *seem* to us that that there is an absence of dots in the circle on the right, this 'appearance depends on our expectations' (80). If our expectations had been different, we may have seen it as empty of crosses, triangles, or elephants. Thus, we might well conclude that we only see *that* the circle on the right is empty of dots.²⁸ It seems to me that Molnar's interpretation of this case of perception of absence is the right one.

As Kusko (2006) has argued, we should distinguish an 'attitudinal' account of the perception of absences, such as O'Shaughnessy's and Molnar's, from an attitudinal account of the absences themselves. Whilst my perception of the absence of the dot from the right hand circle may require the belief that the circle is empty of dots, this in itself gives no reason to think that the absence of the dot is somehow dependent on my belief or other attitudes. And none of this is to deny that there might be some genuine phenomenology of experiencing the cat's not being blue or the circle's being empty of dots— it's just that this phenomenology will be influenced by one's belief that the cat is not blue, or the circle empty of dots. This is also consistent with

²⁸ But see Taylor (1952), whose example this is. Taylor takes it that we perceive the absence of the dot in the right-hand circle without inference and thus directly: in the same way that we perceive its presence in the left-hand circle. CB Martin (1996) also takes absences like this one to be perceptible.

the view that all perceptual phenomenology is, to some extent, influenced by our beliefs and other cognitive attitudes. The point is that in these cases of perceiving that some absence obtains, a belief specifically with the content that the relevant absence obtains is required, and is responsible for the phenomenology of experiencing that absence.

Seeing empty space, I suggest, should not be assimilated to seeing that the cat is not blue or that the circle is empty of dots. Whilst I don't deny that perceptual phenomenology can be affected by our cognitive attitudes, or that we should understand some kinds of perception of absence as 'perceiving *that...*', there seems *no reason* to think that this is how we should understand seeing empty space. It seems unmotivated to say that, for example, I have a positive experience of the bookends, that (perhaps in the context of an expectation that the space between them will be occupied) gives rise to a belief that the space is empty. As Mike Martin puts it, we seem to be visually aware of empty space, in *the same way* as we are visually aware of objects. Seeing the empty space between my bookends, is not contingent upon my having a belief or other cognitive attitude with the content that the space between them is empty.

We said, in section 3, that some philosophers argue that there is no perception of absence, and discussed there some factors that motivate this view. Richard Taylor takes this view to be a 'curious prejudice, which it is difficult to see how experience or reason could ever have yielded' (1952: 443). One reason we might agree with

Taylor is that, as we have seen in the current section and in section 4, it seems rather obviously characteristic of vision that we see empty space, and that our doing so is not merely ‘seeing *that...*’ In the next section I argue that seeing empty space involves a structural feature of visual experience. One reason for the denial that there can be perceptions of absence, such as seeing empty space, might be the neglect of such structural features. And since, I will argue, this structural feature is one that makes an enabling condition for seeing manifest in visual experience, neglect of structural features is also an obstacle to recognizing the way in which such enabling conditions are manifest.

6. Seeing empty space and structural features of experience

I want to argue that we need to understand seeing empty space as involving a certain structural feature of experience. This structural feature, I will claim, also constitutes our awareness of our sensory limitations, and thus, there being a visual field, in Martin’s sense. My first task is to say what the relevant feature of experience involved in seeing empty space is. Then I will say how this feature also constitutes our awareness of our sensory limitations, and explain the sense in which this feature of the conscious character of experience is a structural one. In the final section of the chapter I will suggest that this structural feature of visual experience makes manifest to us an enabling condition for seeing.

The key to understanding the structural feature of visual experience that is involved in seeing empty space is to be found by looking at the way in which seeing empty

space is genuinely a perception of absence (and thus, incidentally, a genuine counterexample to the claim that perception is ‘positivity all the way’).

One way in which it might be thought that we could make the intuition that we see empty space consistent with the claim that there can be no perception of absence is by denying that seeing empty space is an experience of absence. This suggestion might be bolstered by pointing out that in fact, there is no empty space around here to be seen. All the space between the objects we see is full of very tiny objects. We can’t usually see these tiny objects of course, but the point is that the space is not empty. And if there’s no empty space, we certainly can’t see any of it.²⁹

But experience of absence should not be confused with experience of a void. As C.B. Martin writes:

Absences only exclude what they are absences of from their spatio-temporal region, whereas voids exclude everything. (1996: 62).

The space between the bookends in my example is not a void. It contains tiny invisible objects, and it also contains light. My experience of this space is an experience not of the absence of everything, but of something in particular. And

²⁹ Another way in which one might deny that seeing empty space is a perception of absence might be by assimilating cases such as my ‘bookends’ example to the seeing of holes, and then to argue, as O’Shaughnessy does, that holes are not absences (2002: 333 n.6). On O’Shaughnessy’s view a hole is not intrinsically an absence, rather, it is a spatial property of its owner. The difficulty with this suggestion is that it does not capture the difference between our seeing empty space in, for example, a hole in an object, and our being tactually aware of the shape of an object with a hole, such as a polo mint, without having any tactile awareness, analogous to seeing empty space, of the empty space within the hole.

what it is an experience of the absence of, is *visible objects*. To see a region of space as empty, is to see it as empty of visible objects. And to see a space as empty of visible objects is to see it as, in Mike Martin's words 'a place where something could be seen' (1992: 199). I see the place between the bookends as empty in that I see it as a place in which if some visible object were there, I would see it.

Now, I don't want to say that some such conditional is part of the *content* of my experience of seeing empty space. Rather, what I do want to say is that my seeing the region as a place in which if a visible object were there, I would see it, involves a structural feature of visual experience. And in order to understand the sense in which the feature is a structural one, it helps to see that this is the same feature that constitutes our awareness of our sensory limitations, to which I now turn.

One thing that distinguishes structural features from other kinds of feature that experiences have, is that they are features of the conscious character of experience that are not a matter of what the apparent objects of such experience are.³⁰ Seeing a location as one in which if some visible object were there, I would see it, is not seeing some object to be some way— this is obvious enough. But this feature of experience is also independent of the apparent objects of experience in a more substantial sense: it is a feature that visual experience has whether or not it has any

³⁰ This might also make us doubt whether it's true to say that Martin's account of the visual field is not committed to, or at least, does not rule out, any particular theory of perception. Vision having a field is to be understood in terms of features of visual experience that are not representational— structural features. If a representationalist holds the view that all the features of the conscious character of perception are representational features, then this representationalist will not be able to accept the account of the visual field given here.

apparent objects. It is a feature of seeing empty space, and also, I suggest, of our visual experience of visible objects— of occupied space. When I see something — say, an apple— in the space between the bookends, it does not just seem to me that there is an apple there, at that location. It also seems to me as if the apple is located in a region of space in which it is visible to me.

In giving his perceptual account of bodily awareness, Martin writes that the sense of ownership involved in such awareness is ‘structural’ in that it is not some quale that each bodily experience has and could lack. Rather, it has to be something intrinsic to the qualitative character of bodily awareness, generally (1998a: 271, 73, 79). Otherwise, we could conceive of our feeling bodily sensations that seem to have extra-bodily locations. And this is not conceivable for us. Similarly, the structural feature of visual experience involved in seeing empty space is intrinsic to the qualitative character of visual experience generally, rather than some quale that each visual experience has and could lack. It is in this respect a feature of visual experience generally, and not just of visual experience of empty space.

This structural feature, characteristic of visual experience generally, whether or not we seem to see any objects, is constitutive of our awareness of our visual sensory limitations. There being a field in vision is, I have argued, to be understood in terms of our being aware of our sensory limitations. And we are aware of our sensory limitations in that it always seems to us, no matter how far we see, that there is more to be seen that we cannot see: it seems as if the space delimited by the visual field is

a sub-region of a larger space. But it doesn't just seem to us that there is a region beyond the limits of which things *can't* be seen. It also seems to us (as corollary) that there is a space within which things *can* be seen. These two seemings are, as it were, two sides of the same coin. It only seems to me that there is a region within which things can be seen, in that it seems to me that there is a region beyond which things can't be seen, and vice versa.

This is what the structural feature involved in seeing empty space contributes to the conscious character of visual experience generally. It contributes to it our awareness of our sensory limitations, and therefore vision's field-type character. Whether or not we seem to see objects, it seems to us as if there is a region in which one could see them. It's not, as we have said, that some region of space, in which it seems to us that things can be seen, is always an additional object of visual awareness. Rather, what we are aware of are our own visual sensory limitations, which delimit a region in which things can be seen. What I am aware of, in being aware of my sensory limitations, is of there being limits to where something can be, and be visible. It seems as if there are such limits, in that it seems as if things are visible, but only so far. In vision having this feature, it seems to me as if *I* am limited, sensorily. Bodily awareness, as we have seen, does not have this feature. The limits of which I am aware in my awareness of my body, are not my sensory limitations, but the limits of some object, that is, my body.

Before discussing, in the next section, the way in which this structural feature makes manifest to us an enabling condition for seeing, two points of clarification are worth making: the first is that the account given here does not imply that it is necessary for a region of space to fall within the limits fixed by the visual field that it be seen as empty, or indeed, as occupied. Much of the space delimited by the visual field is occluded and so is unseen, whether occupied or empty. The claim made here is not that a region of space falls within the visual field only if it is seen. It is only that our seeing empty space, understood as seeing spaces as potential locations for visual objects, involves the same structural feature that constitutes our awareness of our sensory limitations that is that in virtue of which vision has a field, and bodily awareness does not.³¹

The second point of clarification relates to the fact that superficially, the space beyond occluding objects, and even the space beyond the limits of the field, is space that we might want to say we are ‘aware of as a potential location for objects of vision’. The space beyond the walls of the room, which falls within the visual field, I am aware of, in some way, as space in which I could see things. My awareness of there being more space than currently falls within my sensory limitations, and more things to be seen there than I can see without changing those limits is (as I have argued) what gives visual experience its field-type character. Given this, the space

³¹ It might be argued that my awareness of the occluded parts of the visual field, whatever such awareness might amount to, is also awareness of space that falls in some sense ‘beyond’ my sensory limitations (though still within the visual field). In this case, the limitation is one that applies ‘within’ the visual field. The limitations of vision are such that I can’t usually see beyond a visual object to another, smaller one, beyond it (backlit conditions aside- see Sorenson 2008). The same is not true of hearing, for example. There is much more to be said about these other ‘within field’ sensory limitations and our awareness of them.

beyond my limitations might also be described as somewhere I am aware of as a potential location for objects of vision. But in both these cases, the way in which this space is present to me is very different to the way in which the unoccluded empty space within the field is. In these cases, the ‘awareness’ I have, like the awareness I have of the space beyond my body in bodily awareness, is neutral as to the presence or absence of objects in these spaces. I do not have an experience of absence at the locations beyond the limits set by the field, or beyond occluding walls, merely an absence of experience. I do not see them.

7. Structural features and manifest enabling conditions

One way in which the feature of visual experience currently under discussion is structural, I have said, is that it’s independent of the apparent objects of experience— it is a characteristic of visual experience ‘in general’. Martin writes, of occluded areas of the visual field that:

...one could come to be aware of something at that location without altering the limits of the visual field provided by the angle of vision at that time. An area can come into view simply by a rearrangement of things within the field, rather than by changing the field itself. (1992: 198)

We can mess around with the objects in the field all we like— rearrange them so as to unocclude new regions, even remove them all together without ‘changing the field itself’. What remains unchanged, when we mess with the objects, is the structural feature of experience which constitutes our awareness of our visual sensory

limitations. The feature also deserves to be called 'structural' because what it contributes to the qualitative character of visual experience, in general, is something quite distinctive: it 'structures', or 'organises' it. It imposes a certain form on visual experience. I will argue in this section that the form it gives visual experience is that of seeing seeming to be explained in a certain way. It's in the way in which seeing seems thus to be explained that an enabling condition for seeing is manifest in visual experience.

We said in the previous section that when I see some object, for example an apple, it seems to me not only as if there is an apple there, at that location, but as if it is in a location in which it is visible to me. What I mean by this is that it seems to me, as part of the conscious character of my visual experience of the apple, that it is explained by its being in that location. When I see the apple, it seems to me as if I see it *because* it is at that location. It seems to me that its being at that location *explains* my seeing it. And it's this awareness of my experience as explained in such-and-such a way that, I want to argue, makes manifest to me a visual enabling condition.

One's visual sensory limitations, we have said, delimit a region of space within which things are visible to one. It is necessary, if something is to be seen by me, that it fall within my visual sensory limitations— in front of me, rather than behind or above me, for example, and not too far away. Thus we can say that it is an enabling condition for my seeing a visible object that it falls within my sensory limitations—

within the space they delimit. Seeing some object *o* is enabled by its being in the right place in relation to me, or, if you like, my being in the right place with respect to it. We will discuss this enabling condition more in the next chapter. And for it to be the case that *o* is in the right place to be seen (or for me to be in the right place to see it), *o* must fall within my visual field. And, I want to argue, I am aware of an object falling within my visual sensory limitations *as* an enabling condition for my seeing it, in that it falling within them seems to explain my seeing it. It seems to me as if I see my cup *because* it falls within those limits— because it is in the right place to be seen. And this enabling condition is manifest to me no less in seeing empty space, in which it seems to me, as I have argued, that were anything visible to fall in the relevant location, then I would see it.

Care is needed with this claim. Searle (1983) argues that when we see an object, our experience represents not only the object, but also that the object is causing our experience of it. On this sort of view, our experience has as part of its *content* something like ‘this visual experience is caused by...’. It might be thought that my seeming to see the cup because it falls within the field should be understood analogously, that my experience has the content ‘I see the cup because it falls within the field’, or, in the case of seeing empty space, ‘I don’t see any objects because there are no visible objects there’. This is not how the claim that enabling conditions are manifest in the phenomenology of visual experience should be construed.³²

³² There is much more to be said about the relation between my claim here and Searle’s claim that experiences are ‘causally self-referential’.

Enabling conditions are not represented in the content of experience, but are manifest to one in virtue of a structural feature of visual experience.

Neither is my claim that the visual field is an object that I see and that it seems to me that I see the cup because I see the this unusual object, the visual field. In my discussion of the visual field I have emphasized that our awareness of the limits fixed by the field is not awareness of some 'thing'. This awareness, I suggested, we should understand rather as a structural feature of visual experience. It is a feature of the way in which our experience of objects seems, and not an apparent way in which those objects seem. The structural feature in virtue of which a visual enabling condition is manifest in seeing does not introduce some extra 'thing' that is seen, but rather structures our experience of the things that we do see. Our experience (whether of objects or empty space) is 'structured' by this feature, just in that, as I have argued, it seems to us as if our seeing the things we see is 'explained' in a certain way.

Since what we are aware of in this enabling condition being manifest in experience here are not objects of experience (things that we see), we do not become aware of them by attending to them, as we do in the case of the objects that we see. There is no further 'thing' for us to attend to, in experiences having this structural feature, other than the objects our awareness of which it structures. It is nevertheless present to us in the conscious character of experience. One way to make this clear is to consider how we would convince (and have been trying to convince) someone that

vision has this structural feature, and thus that the enabling condition is manifest in seeing. What we would not do is to get them to visually attend to their sensory limitations, as we visually attend to objects of experience, since they are not objects in this sense. Neither would we get them just to introspect. This last point is important because enabling conditions being part of the conscious character of visual experience need not be something that is obvious to one. For some aspects of the phenomenology of experience, what is required is not (or not just) attention to either apparent objects of experience, or to the experience itself, but *argument*.

In O'Shaughnessy's view, that we see light is one such aspect. In order to convince his reader that we see light, which it is not at all obvious from introspection that we do, we must, he writes, 'avail ourselves instead of tools of an altogether different and non-observational kind: namely, those of argument.' (2002: 439). And again: 'The only picking out that is possible is a...picking out by conceptual rather than attentional tweezers, aided and abetted by argumentation' (2002: 452).³³ To be clear—the point is not just that the aspect of phenomenology with which I'm concerned is a way that experience *would* seem to someone with the relevant concepts. The idea is that the enabling conditions are there anyway, in the conscious character of experience, but that it requires argument to be convinced of their presence, rather than just introspection.

³³ See also Martin (unpublished) Chapter 1: '...it is commonly assumed that one does just know whether things are appearing to one in a certain way or not, and what such appearances in themselves are.' Martin questions this assumption.

So there is no implication that one is aware of the enabling conditions only once one has reflected on one's experience. The idea is that though one had to be made to reflect on these features of one's experience, they were there all along, before one reflected. This is a point worth emphasizing. I have described a visual enabling condition being manifest to us in it seeming to us that we see objects *because* they fall within the field. This carries no commitment to the thought that the subject of such experience need have the concepts of the visual field, or other kinds of concepts that might be thought to be involved in this 'because'. Nevertheless, since I am concerned to a large extent with phenomenology, it is adult, human experience that I discuss. The phenomenology of the experiences of animals or pre-linguistic infants who we might think do not, incidentally, have the relevant conceptual capacities is, of course, something to which I don't have access.

Chapter 3: Enabling conditions and active attention

We have seen in Chapter 2 that a certain structural feature of visual experience makes manifest to us a visual enabling condition. The structural feature is that in virtue of which vision has a field. Bodily awareness does not have a field in this way— we are not aware, in bodily awareness, of sensory limitations in the way that we are in vision. In chapters 4 to 6 I will argue that enabling conditions are manifest in the conscious character of touch, hearing, taste and smell too. And it is not the case, in all these modalities, that the features that make manifest the enabling conditions are structural features that constitute awareness of sensory limitations. The idea of a field is not applicable to all our senses, though enabling conditions of a certain kind are manifest in all. My first aim in this chapter is to argue that bodily awareness has no enabling conditions of this kind.

The place that the enabling conditions that the five senses have and which bodily awareness lacks has in our account lies not only in their being manifest in the conscious character of sense-experience. I will argue also that we exploit our grasp of these enabling conditions in active perceptual attention. I will argue in the current chapter that we exploit our grasp of the enabling condition that is made manifest in visual experience in active visual attention, which is to say, in *looking*. In section 3 I argue that there is a bodily equivalent to looking, in that one can attend to one's body in a way that is analogous in a number of ways to the way in which we can actively attend to objects of vision. However, no enabling conditions are exploited in actively attending to one's body, as they are in looking (section 4). First though, in

sections 1 and 2, I describe the kind of enabling conditions that vision has (and which we will see later that the other senses also have) and bodily awareness lacks.

1. Sense-organs

We said, in Chapter 1, that on the face of it, one very salient difference between the senses, on the one hand, and bodily awareness, on the other, is that there is no obvious sense-organ associated with the latter. Considering this difference will help in understanding the kind of enabling conditions that are absent from bodily awareness. In order to do so we must say something in answer to the question ‘what does it mean to say that some part of the body is a sense-organ?’

Nudds (2003: 33) points out how natural an answer to the question of how the senses are distinguished from one another is that which takes them to be individuated by sense-organs. When asked how the senses are distinguished from one another, he suggests, most people will refer to the fact that different parts of the body are involved in perceiving in each modality. Given the naturalness of the sense-organ criterion as an answer to the individuation question, it is surprisingly difficult to give the conditions under which some part of the body counts as a sense-organ.

Armstrong suggests that one ‘mark’ of a sense-organ is that ‘it is a part of our body which when stimulated produces a characteristic range of perceptions’ (1993: 212). But if we want to identify sense-organs as body-parts that produce characteristic ranges of perception, we shall have to find independent criteria for picking out the

relevant characteristic ranges of perception. Without some such criteria, we might well identify the right hand side of the body as a sense-organ, in virtue of the range 'perceptions as of things on the right' being produced by the stimulation of this part of the body. And it might well be that in order to find relevant criteria, we must first answer the question of how the senses are distinguished from one another, which it is not my concern to do here.

A second 'mark' of a sense-organ, Armstrong writes, is that it is 'a portion of our body which we habitually move at will' in order to perceive (1993: 213). This is Anthony Kenny's suggestion, too:

...we shall not be far wrong if we say that an organ of perception is a part of the body which can be moved at will in ways which affect the efficiency of the sense in question (1963: 57).

There are two problems with identifying sense-organs with parts of the body that we habitually move at will in order to affect perception. One is that, if this is how sense-organs are identified then at least without further elucidation, the whole body would count as a sense-organ. In order to perceive what's going on in the corridor, I get up and move my whole self there. The second problem with identifying sense-organs in this way is that applying it might lead us not to count as sense-organs some body-parts that we usually think of as sense-organs. For example, it is far from clear that

the ears count as sense-organs if sense-organs are parts of the body that are moved at will in order to perceive. As Baldwin remarks:

Though we often turn our head in the direction of a sound, shifts in auditory attention do not require movement of the ears (2003: 195)

Neither is it clear that taking Armstrong's two 'marks' of a sense-organ together, we have 'criteria that are necessary and sufficient for calling something a sense-organ' (Armstrong 1993: 213).

Neither can we identify sense-organs naturalistically, as physiological mechanisms 'whose functioning is necessary for parts of the body to function in perception' (Nudds 2003: 34). This is because, as Nudds points out, there are diverse mechanisms involved in the functioning of each sense. Thus, if we identify sense-organs with these physiological mechanisms, we will identify far more sense-organs than we usually count. Nudds uses the example of touch to illustrate this point. There are, he writes, at least fifteen different physiological mechanisms involved in perceiving that we would usually think of as tactile (Nudds 2003: 34) Of course, one might hold that we *should* think of all fifteen mechanisms as distinct sense-organs. But the problem with such a move, for our purposes here, is that the way in which we would then be thinking of sense-organs would not be one on which bodily awareness involved no such organs. Bodily awareness involves the functioning of physiological mechanisms no less than do the senses. But it seems that there is some

way in which it is right to say that it does not involve a sense-organ, as the senses do, even if we cannot give any very clear conditions under which some part of the body counts as a sense-organ. It might be that, as Kenny suggests, the concept of a sense-organ is not 'entirely precise' (1963: 57).

For our purposes here, our inability to give such conditions need not be too disquieting. We can, for the purposes of this thesis, work with a minimal conception of a sense-organ as a *place from which* things seem to be perceived. Our everyday conception of a sense-organ may, and probably does involve more than this. But it seems right to say that the parts of the body we usually think of as sense-organs are places from which things seem to be perceived, even if they are also, and we also think of them as being more than this. In vision, we can easily identify such a place: the place, roughly, where one's eyes are. But two points of clarification need to be made here. Firstly, the claim is not that things seem to be perceived, visually, from our *eyes*, if this is understood as meaning that our eyes, considered (roughly) anatomically somehow figure in visual experience as its point of origin. Rather, the claim is just that there is a bodily location, which as a matter of fact is roughly that of our eyes, which seems to be the place from which we see things. This place is the sense-organ, minimally conceived. Secondly, there seeming in vision to be a place from which things are seen does not mean that this 'place from which' is itself *seen*. It is not, as Martin puts it, 'an explicit element in how things are presented as being' (2002: 409). Rather, the place from which one apparently sees is implicitly 'marked in one's...experience through it being the point to which the objects perceived are

presented' (*ibid.* 410).³⁴ It is this aspect of the phenomenology of sense experience with which AD Smith is concerned when he remarks on the, as he puts it,

...spatial *over-againstness* with which perceptual objects are given to awareness: an over-againstness which involves a part of the body functioning as a sense-organ (2002: 134)

There is this over-againstness in the conscious character of sense experience in that it presents objects as 'literally external to' (*ibid.*) one's body. It presents them as literally external to the body by presenting to one the spatial separation between part of the body serving as a sense-organ, and that which is perceived.

In bodily awareness, there is quite clearly no sense-organ in the sense of a place from which things seem to be perceived in such awareness. Obviously, the pain one feels isn't presented when one has a headache as spatially separated from one's head. There is no 'over-againstness' in pain experience. Rather, as Smith puts it, 'a bodily sensation such as a headache is experienced as *in* your head; It is not perceived as an object *with* your head' (2002: 134). When I have a sensation of pain, or warmth, or pins and needles, I feel these qualities *in* parts of my body. And, as Kenny puts it,

In general, to sense something *in* a part of one's body is not at all the same as to sense something *with* a part of one's body. (1963: 57).³⁵

³⁴ Cf. Wittgenstein 1955: §5.633

Similarly, in states of bodily awareness other than bodily sensation, such as proprioceptive awareness, there is no place from which what I feel is felt. I do not seem to be aware of, for example, the relative position of my hands as I hold them out in front of me with my eyes closed, *from* anywhere. There is no sense-organ for bodily awareness in the minimal sense that there doesn't seem to be any place from which we perceive things in such awareness. And this is very closely related to there not being for bodily awareness the kinds of enabling conditions we have seen there are for vision and which we will argue there are for the other senses.

2. Being in the right place

From there being no organ (minimally conceived) of bodily awareness it follows quite straightforwardly that it lacks enabling conditions of a certain kind. The kind of enabling conditions it lacks are had by all five of the commonly identified senses and are those which I will argue over the course of the thesis are distinctive of the senses. Perception in the five familiar senses is enabled, very loosely speaking, by *being in the right place*. And having to be in the right place in order to perceive in some modality is just the upshot of there being, for that modality, a sense-organ in the minimal sense described in the previous section. I expand on this claim in this section.

³⁵ Kenny also emphasizes the absence of organs of emotion, and in this, the similarity of emotion to bodily sensation (1963: 56-8).

Because there are sense-organs involved in perception in the five familiar modalities, perception in these modalities requires ‘getting the appropriate organs into an appropriate relation to the object of perception’ (Shoemaker 1994: 252). In Chapters 4–6 I will argue that this is true of touch, hearing, taste and smell.³⁶ For now, I will focus on vision. The ‘appropriate relation’ into which one must get the organ, in each of the five modalities, is spatial. One must get the organ, and thereby oneself, into the right place in order to perceive things. If there is a place from which things are perceived, then that place (the organ) must be suitably located in order for things to be perceived. I see things from here, where my eyes are, and so here, where my eyes are, must be suitably situated in relation to an object if I am to see it. The enabling condition that I argued in the previous chapter is manifest in the conscious character of visual experience is a matter of having to get oneself, and specifically, one’s organs of vision, into the right place in order to visually perceive things.

We said there than an enabling condition for seeing an object is its falling within the limits fixed by the visual field— its being in the right place to be seen. Something falls within the limits fixed by my visual field, and is thus in the right place to be seen by me, if and only if *I*, and specifically, my organ of vision, is ‘in the right place’ in relation to that object, to see it. Locating oneself such that an object falls within the limits of the visual field is then a specification of what is meant by ‘being in the right place’, in the case of vision. We can equally well see the condition as a defeating or disabling condition for perception of an object. One way in which I can

³⁶ Though we will see later in the thesis that not all of the enabling conditions that are manifest in experience are so straightforwardly spatial- see especially Chapter 5.

fail to see the cup on my desk is by moving my gaze so that the cup no longer falls within those limits. Some object *o*'s falling in my visual field is an enabling for my seeing it, its falling outside of the field is a disabling condition for my seeing it.

An object falling within my sensory limitations is not, of course, sufficient for seeing it. There are also many other enabling conditions for seeing, some of which it might also be argued are manifest in the conscious character of visual experience. One such condition is the absence of occlusion. There being nothing in between myself and some visible object enables me to see it, and there being some such occluder disables visual experience.³⁷ This enabling condition is also, like falling within the field, a specification of what it is to be in the right place to see something. I will not be in the right place in order to see my cup if the cup is behind the computer. This enabling condition is manifest in the conscious character of seeing in that it seems to us, when something becomes unoccluded, precisely as if this is what has occurred. When something passes behind a barrier and then back into view, such as a cat walking behind the wheels of a parked car, it seems to us as if we see it, don't see it, and see it again. When something which I can see becomes suddenly occluded, as when the blinds are drawn and I can no longer see the tree outside my window, it seems to me as if the tree has been suddenly occluded. It seems this way in that there is a phenomenal difference for me between the tree being suddenly occluded, and the tree disappearing. I am aware of occlusion, 'as such'.³⁸ Though

³⁷ Backlit conditions aside. (See Sorensen 2008)

³⁸ Perhaps we are also aware, in seeing the empty space between ourselves and the objects we see, of the absence of occluding objects. The kind of over-againstness present in vision as Smith writes,

the absence of occluders is an enabling condition for vision, in most of what follows I will focus on the first enabling condition we discussed, that is, falling within the field.

We can see then that lacking a sense-organ, bodily awareness will lack enabling conditions that involve being in the right place to perceive. Generally, if for some variety of perception there is no place from which things seem to be perceived, then one will not have to get into the right place in order to perceive in this way. And we have seen that there is no place from which things seem to be perceived in bodily awareness. There being no place from which I feel my hurting foot, there is no question of getting in the right position to feel it.³⁹ There is no question of my being suitably (or unsuitably) placed in order to feel the pain in my foot, or the relative position of my hands. Wherever I go, or turn, I am aware of my feet and hands, and my going and turning is not responsible for my feeling them.

So I have argued, in Chapter 2, that a visual enabling condition is manifest in the conscious character of seeing. And in this section, I have said more about the kind of enabling condition that this is, and have tried to make it clear that bodily awareness lacks conditions of this kind. In the rest of this chapter I discuss another feature of the enabling condition that I have been arguing is manifest in the conscious

'implies as a possibility...that something should interpose itself between ourselves and the perceived object so as to occlude it' (2002: 137).

³⁹ It might also be argued that it doesn't seem to us that there is an organ of bodily awareness because of the absence of manifest enabling conditions from the conscious character of this kind of experience. This is consistent with what I say here- I do not claim that the minimal conception of a sense-organ is explanatorily prior to that of enabling conditions being manifest to us. I return to this point in Chapter 7.

character of visual experience. We exploit our grasp of this condition, I argue, in active visual attention, which is to say, in looking. There being no such enabling conditions for bodily awareness, none are exploited in attention to one's body.

3. Looking and bodily attention: what they have in common

It is notable that for bodily awareness we have no word to denote an activity analogous to the visual activity we call 'looking'. Looking is a variety of attentive perceptual activity, along with listening, tasting, feeling, and smelling, which I will discuss in later chapters.⁴⁰ Though we have no word for it, we do actively attend to our bodies, in bodily awareness. I want to point out, over the course of this section and the next, a difference between looking and bodily attention, by which I mean the kind of attention to one's body that is possible in bodily awareness.

First though, in this section, I consider what looking and bodily attention have in common. My purposes in pointing out these similarities are twofold. Firstly, I want to make clear that though there is an important difference between looking and bodily attention, none of the ways discussed in this section are ways in which these two kinds of attention differ. Secondly, the details of the features that looking and bodily attention have in common are crucial to the explanation of what the

⁴⁰ I take it for granted that there is nothing incoherent in the notion of *active* perceptual attention. One potential worry is that perception 'owing its existence to the will' is inconsistent with perception being that which gives us evidence for our beliefs about the world. See Baldwin 2003 and also O'Shaughnessy 2002 and Crowther forthcoming (a). O'Shaughnessy's solution to this worry (which he calls the 'antitheticality puzzle') is that the causal property of active perceptual attention is that of causing external objects to cause us to perceive them (2002: 207; 398). On his view, active attention is essential to perception playing its epistemological role (see 2002: 207).

difference between the two kinds of attention in fact is. I will give this explanation in the next section (section 4).

3.1 Selectivity

Looking is a form of selective attention. The selectivity of attention, as William James puts it, ‘implies withdrawal from some things in order to deal more effectively with others’ (quoted in C O Evans 1970: 74). One effect of this is that when I attend, my experience has a foreground/background structure which, arguably, is the ‘hallmark of attention’ (C O Evans: 1970: 75). In looking at the tree outside my window, the tree comes to the ‘forefront’ of my awareness, whilst the other things that I can also see from here (the buildings, the window I’m looking through) recede: they are ‘recessive’ in my experience. John Campbell calls this ‘experiential highlighting’ (Campbell 2002). Bodily attention is also selective. I can selectively attend to a particular sensation —say, a pain in my foot— or a particular body-part —such as my left arm— or to some occurrence in my body —my heart beating— or something that I’m doing with it, such as moving my fingers. And when I attend in this way to my body, as in the visual case, other things of which I am also bodily aware recede.⁴¹ The difference between bodily attention and looking, is not then one of selectivity.

⁴¹Proprioception (our awareness of the layout and location of our body-parts) is usually experientially recessive. See O’Shaughnessy (1989).

3.2 Activeness

Looking is *active*. By this I don't mean to suggest that it is always, or even ever, a 'full-blooded' action. All I mean is that looking is something that is to be contrasted with things that merely happen to, or in one, like catching a cold, or the circulation of blood. Looking is a form of 'active' attention in this way.

To say that looking is active even in this undemanding way is thereby to distinguish it from some other things that we might call attention, for example, some of the things that the word 'attention' has been used to denote in cognitive psychology. 'Attention' is used in the psychological literature to refer to a whole range of things of different kinds: kinds or instances of processing, and both resources and the distribution of those resources, for example. Shiffrin writes: '[a]ttention has been used to refer to all aspects of cognition that the subject can control...and to all aspects of cognition having to do with limited resources or capacity, and methods of dealing with such constraints' (quoted in Styles 2006: 1). Whilst this leads some psychologists to deny that there is any such thing as attention, a more guarded response is that, as Driver *et al* put it, 'attention', as the term is used in cognitive psychology is 'best thought of as the umbrella term for a general topic, subsuming a host of questions about selective processing, *not* a single explanatory process' (2001: 64). It is, at the very least, unclear whether any of the things that fall under this umbrella term are things that subjects *do*, as looking is. It is also unclear—and there is apparently no consensus—as to how these phenomena relate to the relatively common-sense notion of attending as something that subjects do. Sometimes

psychologists and philosophers talk about ‘attention’ as the subject themselves having an effect on the information processing mechanisms psychologists postulate in their talk about attention. It is for these psychologists and philosophers a sort of level-crossing phenomenon, linking the conscious and sub-personal states of the subject. Driver et al (2001) talk of ‘the attentional state of the observer’ *modulating* processing. Eilan (1998) and Campbell (1997; 2002) describe attention as the selection *by the subject* of information for further processing. In any case, the variety of active perceptual attention we call looking is something that can be described and understood without reference to the psychological story of what happens, subpersonally, when a subject attends.

Looking being ‘active’ also distinguishes it from exogenous attention. Exogenous attention occurs when, as we say, my attention is ‘caught’, as when a loud noise distracts me from my reading, or a flash or sudden movement ‘catches’ my eye. (See C O Evans 1970: 83 and 98). It seems right to say that having my attention attracted in this way is something that happens to me, and not something that I do. It is worth saying a bit more though about the sense in which looking is something that one does, and thus, ‘active’.

Whilst looking is active, and just having my attention caught is not, looking is nevertheless not something over which I always have control, or can exercise choice. Very attractive, or novel stimuli, especially, may be very difficult, if not impossible, for me *not* to look at. And neither can I always choose *how much* attention to give to

the things at which I look. Just as I cannot prevent my attention being caught by very novel or intense stimuli, so I may not be able to stop looking at something. And some things, perhaps because they're very stimulating, I may not be able to give much less than all of my attention to. What nonetheless marks out looking, even in such limiting cases, as active, is that we can speak of the *way* in which the subject looks. Even when I can't stop looking at something, or reduce the amount of attention I give to it, we can talk of my looking more or less carefully, or deliberately, or intensely, for example, or even lovingly or disgustedly. It is the mark of something that one does, as opposed to something that merely happens, that we can talk about the way in which one did it. Something doesn't 'happen' to me carefully, carelessly, lovingly, or disgustedly, and I cannot have my attention caught in any of these ways.

Another aspect of what is meant by looking being active is that it is purposeful. When we look, we look for a reason. This is not a feature of looking that is additional to its being active. Looking, we have said, is active in the sense that it is something that one does. Things that you do have success conditions which you may fail or succeed in meeting. Things that just happen do not. Meeting these success conditions can be said to be the purpose of the activity. There are very many purposes with which we look, and we may have more than one of these at a time. We look simply in order to see an object, or to see what properties it has, or what it's doing. We look in order to see what's going on at a location, or to see whether there's anything there. We look in order to successfully perform actions and in order

to acquire knowledge about the world.⁴² Looking then, understood as something which we do, is purposeful. That is not to deny that there is a sense of ‘looking’ with which this claim is completely at odds, as in the expression ‘looking without seeing’, used to describe a state familiar, so I’m told, to drivers. One counts as looking in this sense if one is merely pointed in the right direction with one’s eyes open. Certainly, such looking does not involve any purpose. But neither is it something one does: one does not ‘look without seeing’ carefully or intensely (or carelessly, or with a lack of intensity, for that matter). *This* sense of looking is not that with which I am concerned— what I’m interested in is looking understood as actively attending.

Bodily attention is also active in the same way that looking is. I attend to my bodily sensations, posture, goings-on and the like more or less carefully or absent-mindedly, and so on, and do so with a variety of purposes. One might attend to one’s foot for example, in order to discover where it is in relation to one’s hand, or to ascertain whether it hurts. We attend to pains and other sensations for the purpose of discovering their intensity and quality or for less simple reasons such as determining whether they feel worse than they did yesterday or (even) whether one should take a day off work. Thus bodily attention and looking cannot be distinguished by reference to one or other of them being ‘active’.

⁴² In this latter case, our purpose in looking might be described as getting an answer to a question, in which case the attention is interrogative (see C O Evans 1970).

3.3 Variety

Another way in which we can't distinguish between acts of looking and acts of bodily attention is less straightforward to describe than are the similarities discussed in the previous two subsections. Understanding this feature will be crucial to understanding the difference between looking and bodily attention that I will discuss in the next section. Thus I will spend some time here trying to make it clear. The account I offer owes a great deal to Thomas Crowther's discussion of these issues in his 'Perceptual activity and the will', and 'Watching, sight and the temporal shape of perceptual activity' (both forthcoming).

To begin with, note that looking comes in different varieties, which we have ready linguistic resources to pick out. We talk of *looking at* things, *looking for* or *looking out for* them, and also of *watching*. And these different modes of expression correspond to genuine differences amongst the kinds of perceptual activity they denote. Here I want to point out that we can divide the varieties of looking into two. On the one hand, we have 'looking at' and watching. On the other, 'looking for' and 'looking out for'.

If I look *at* something, or watch it, I see it throughout the period of time during which I look at or watch it. For example, if I look at my cup for two minutes, I see it throughout that two minutes. Otherwise I do not count as looking at it. Similarly, I only count as watching a TV programme for half an hour if I see it during that half-

hour.⁴³ The same is not true of all instances of looking. For example, if I look *out for* something, say, the arrival of a particular bird in the tree outside my window, I do not see the object of my attentive activity —that for which I look out— throughout the time that I look out for it. Quite the opposite. My seeing the bird comes at the end of my looking out for it, and brings an end to my looking out for it. And similarly, if I look *for* something, say, my lost keys, I do not see them throughout the period of time during which I look for them. Once I see them, I stop looking for them.

In the case of bodily attention, we do not have to hand the linguistic resources that in the visual case, make salient to us the fact that looking comes in these different varieties. But we can nevertheless make the same distinctions amongst different kinds of attention to one's body as we have seen can be made in the case of looking. If I attend to, for example, my breathing for five minutes, I am aware of my breathing throughout that five minutes. This then is equivalent to looking at, or watching. Though we don't usually talk of what we might call 'feeling for' or 'feeling out for' in the same way as we do their visual equivalents 'looking for' and 'looking out for', examples of bodily attention that are analogous to these visual cases are not difficult to find. For example, say I have reason to expect that I will get a headache this afternoon. Perhaps I've taken some drug that has headaches as a side effect, or that I always get a headache on a Wednesday afternoon. I may 'feel out' for a headache, just as I look out for the arrival of the bird in the tree. And as in the

⁴³ See Crowther forthcoming (b) for some comments on the difference between 'looking at' and watching.

case of ‘looking out for...’ when I feel out for my headache, I am not aware of it throughout the period of time in which I feel out for it. I stop feeling out for my headache once I feel it.

We have said, in 3.2, that both looking and bodily attention are active, and therefore purposeful. And in both varieties of looking and bodily attention the purposes one might have are limitless. But in looking at, or watching, and in their bodily equivalents, whatever other aims or purposes I might have, I will also have a certain minimal aim. If I look at my cup for two minutes, or attend to my breathing for five, my minimal aim is, as Crowther puts it, the ‘agential preservation or maintenance’ of a certain state of awareness throughout that period of time (forthcoming (a): 22). For now, we’ll say that what one aims to maintain, or preserve, is one’s ‘selection’ of the object of one’s attentive activity— that at which one looks, or which one watches. In looking at my cup, I aim to keep it singled out, or highlighted, in the foreground of my experience. Similarly, in attending, bodily, to my breathing, I aim to keep it singled out, amongst all the other potential objects of attention. And the meeting of this minimal aim of maintaining selection occurs throughout my attending. I keep my breathing, or my cup, singled out, so long as I attend to my breathing, look at my cup. Let’s call cases of attention that have this minimal aim, after Crowther, *perceptual monitoring*.

So we have seen, so far, that attention, whether visual or bodily, can come in two kinds. In one case, we perceive the object of our attentive activities throughout our

attending to it. In the other we don't. We have called the former kind of case 'perceptual monitoring', and have said that these cases involve the minimal aim of maintaining selection of the object of attention. Exemplary of the second kind of case are 'looking for...', 'looking out for...' and their bodily equivalents. In these cases we do not perceive the object of attention (that for which we look, or look out) throughout our attending, thus we do not in these activities aim to maintain selection of the object of our attentive activity. If we perceive that for which we look, or for which we look out at all, it brings an end to our looking. Now, I want to argue that perceptual monitoring is ubiquitous, in the following sense: 'looking for...' and 'looking out for...', and their bodily equivalents, themselves involve perceptual monitoring, though not of course monitoring of the object of attention, considered as that for which one is looking, or looking out (or the bodily equivalent).

In order to look out for, or look for something, I look at something else— I perceptually monitor it. For example, when I look out for the arrival of the bird in the tree, I look at the tree, with the minimal aim of maintaining selection of it. I perceptually monitor the tree. And when I look for my keys, whilst I do not monitor the keys, I may, for example, look at, and therefore successively monitor a series of locations at which I hope to find them, or a series of objects which I hope might be my keys. Something analogous is true in bodily attention. What I do in order to meet the aim of 'feeling out for' my headache, for example, is to monitor my head. I keep my head in the foreground of my bodily awareness, in the hope that when my headache comes, I will notice it straight away.

In the next section, I want to argue that despite the similarities essayed in this section, bodily attention and looking differ in an interesting way. The interesting difference between looking, and bodily attention, lies in what one does in each case in perceptual monitoring. This is why it has been important, in this section, to note not only the different kinds of both bodily attention and looking, but also the ubiquitous nature of one of these kinds, namely, that of perceptual monitoring.

4. Looking and bodily attention: how they differ

I have argued that bodily attention and looking are both selective, active (and so purposeful) and that both, despite the relative poverty of our linguistic resources for talking about bodily attention, can be subdivided into different kinds. In this section I argue that despite these differences, the two differ in an interesting way.⁴⁴ The interesting way in which they differ, I argue (in 4.1), is in what one does in what, in the last section, I called perceptual monitoring. In visual perceptual monitoring, one exploits one's grasp of the kind of enabling conditions discussed in section 2 above, in order to maintain perceptual contact with the things to which one attends. In bodily monitoring, there are no enabling conditions one's grasp of which one exploits, and it does not seem right to think of what one does in bodily perceptual monitoring as maintaining perceptual contact with anything. In section 4.2 I argue that the kind of grasp one need have of the enabling conditions one exploits in looking is implicit, or practical knowledge.

⁴⁴ One way in which they differ that is not interesting is that in one case what one attends to is one's body and in the other, one can attend to very many other things than this.

4.1 Exploiting enabling conditions

We saw in section 3.3 that both bodily attention and looking can be subdivided into two different kinds. On the one hand, there are instances of looking, and of bodily attention, in which one does not perceive the object of one's attentive activity until the end of that activity. On the other, there are those instances in which we see or feel the object of attention throughout our looking or feeling. These latter instances we have called perceptual monitoring. And we have argued that perceptual monitoring is ubiquitous, in that it is also involved in the former kind of case. Though I do not perceptually monitor the bird throughout the time during which I look out for it, I do perceptually monitor something, the tree, in order to look out for the bird. And though I do not feel my headache whilst I 'feel out' for it, I perceptually monitor my head during this time. It was important to see that cases of attending that are not themselves cases of perceptual monitoring nevertheless involve such monitoring for the following reason. I want to argue that looking and bodily attention differ in what one does in perceptual monitoring. Without taking note of the ubiquity of perceptual monitoring, we cannot claim sufficient generality for our account.

Both visual and bodily perceptual monitoring involve, we have said, maintaining 'selection' of the object of attention— keeping the cup or the headache or whatever in the foreground of my experience, continuing to 'highlight' it. However in vision, and not in bodily attention, monitoring in this way involves maintaining *perceptual contact* with something, in this case, the cup. In visual perceptual monitoring, part of

the task of monitoring is just *keeping seeing* the thing, or, as we often say, not ‘losing sight’ of it. In other words, in visual perceptual monitoring, one has to maintain perceptual contact with the object of attention. And it’s in maintaining perceptual contact with objects of visual attention that we exploit our grasp of the enabling condition that we have been discussing here.

We have said that in order to see something, such as my cup, I have to be in the right place. More specifically, I have to locate myself such that the cup falls within the space delimited by my sensory limitations— within my visual field. So, in order to *keep seeing* my cup, which is to say, to maintain perceptual contact with it, I have to *keep* the cup within my visual field. For example, I have to not let it get too far away, or go too far away from it, or turn my back on it. It’s in this way that I exploit my grasp of the enabling condition in looking. I exploit it in order to maintain visual perceptual contact with my cup, or with whatever else that I’m looking at. And since, as we said in section 2, the enabling conditions with which we are concerned here can just as well be understood as defeating or disabling conditions, I can also exploit my grasp of them in order to put an end to perceptual contact with my cup. I can exploit my grasp of them in order to stop seeing my cup. I can turn away from it, or get very far away, or fail to follow as it is carried out of the room.

In bodily attention, maintaining my ‘selection’ of the object of attention, such as my headache, does not involve maintaining perceptual contact with my headache. Thinking of it being ‘perceptual contact’ that is maintained in bodily perceptual

monitoring doesn't seem right. Keeping my headache at the forefront of my awareness, I am not *keeping feeling* it. I am doing something, namely, maintaining my selection of it. But I am not actively keeping feeling it, as I actively keep seeing my cup. I am woefully unable to *stop* feeling it, at least, in the way in which I can stop seeing my cup. I cannot stop feeling my headache in the sense that there are no enabling conditions analogous to those there are for vision, that I can exploit in order to do so. There is nothing analogous to turning away, or getting further away that I can do in order to no longer feel my headache, or the relative position of my hands, or the itch in my foot. And correlatively, there is nothing like this that I do in order to *keep* feeling these things. I don't keep my body-part or sensation within some bodily field in monitor it. I don't more generally, 'stay in the right place' to feel my headache.⁴⁵ There are no relevant bodily enabling conditions my grasp of which I can exploit in bodily attention.

The point is not that we are unable to do things to stop bodily awareness just because the things of which I can have bodily awareness are extremely good at attracting our attention, and very difficult not to attend to, though this is no doubt true. There are also potential objects of vision that, as discussed above, it might be very difficult for me not to look at, because they are very novel or otherwise interesting. Nevertheless, in order to maintain visual contact even with the exciting, novel stimulus at which one finds it hard not to look, one has to exploit one's grasp of an enabling condition. One has to keep even these exciting things within one's visual field. And one could,

⁴⁵ Similarly, I don't have to get into or stay in right place to feel an emotion. Kenny (1963: 57) emphasizes this consequence of there being no organs of emotion as there are sense-organs.

in principle, turn away from them and thus stop seeing them. There is nothing analogous that I could do to stop feeling my pain, or the position of my hands, even in principle.

The qualification that there is nothing that I can do to put an end to bodily awareness that is *analogous* to what I can do in the visual case is an important one. There are of course things I could do to alleviate or stop pain, or other bodily sensations. I can scratch an itch, or rub a sore knee, or take paracetamol and if I'm lucky, the itch or the pain will go away. But this is not exploiting a defeating condition for awareness of a bodily sensation. Rather, it seems to be best understood as an alleviation or reduction of the painfulness or itchiness itself, analogous to rubbing out a picture in order no longer to see it, rather than to turning away from it. And since I have only so much attention to go round, I can also find ways of distracting my bodily attention from pain, or my posture, or movement, by deliberately devoting more of it to something else. I might, for example, concentrate very hard on the movement of my fingers in order to distract myself from my headache. Doing this is not like moving one's gaze away from something that one sees, and no longer wants to see, by turning around, or moving away. Rather, it's a matter of our being able, sometimes at least, to give more or less attention to some of those things of which we are aware. Simply giving more or less attention to something is not exploiting an enabling condition. The visual analogue for distracting oneself from pain is not moving one's gaze away from something, but instead the way in which we can shift

our attention between the things that we can see, within the visual field, without moving our gaze.

4.2 Grasp of enabling conditions

I have spoken, in this section, of enabling conditions for visual perception being ‘grasped’ and ‘exploited’ in looking. I argue in this final subsection of this chapter that one need not have an explicit grasp of these conditions in order to exploit them in looking in the way in which I have argued that we do. One’s grasp of these conditions can be merely implicit or practical.

One way in which we might grasp the enabling conditions for visual perception is ‘explicitly’. By having an explicit grasp of visual enabling conditions one might mean that someone who has such a grasp can say what the enabling conditions for visual perception are. Or, less demandingly, one might mean that one who has explicit grasp of the enabling conditions for visual perception can give appropriate explanations of why they perceived what they did, or of what they did in order to perceive, on a given occasion.⁴⁶ So, for example, someone who was able to give explanations such as ‘I saw the cup because I was facing it and there was nothing between me and it’, or ‘I didn’t see it because I turned my back on it’ might count as having this kind of explicit grasp of enabling and defeating conditions for visual

⁴⁶ This is what John Campbell has in mind by an ‘explicit’ grasp of the simple theory of perception and action that, in his view, plays an important role in self-consciousness (see Campbell 1995).

experience. The ability to give such explanations might be based on actually being able to say what the enabling conditions for vision are, or it might not.

If the enabling conditions are grasped ‘explicitly’, in either of these ways, then how might we think of the enabling conditions as exploited in looking? If the grasp one has of the enabling conditions for vision is explicit, then one might exploit that grasp by, as Roessler puts it, ‘engaging in practical reasoning about what to do in order to acquire...information’ (1999: 58). One’s exploitation of one’s explicit grasp of the enabling conditions would consist in this practical reasoning about what to do. Such reasoning might be along the lines of ‘I want to keep seeing at the cup, in order to keep seeing something I must keep facing it, therefore I will keep facing the cup’. Perhaps.

It’s not easy to give a general account of the distinction between explicit and implicit grasp, and I don’t intend to try to do so here. It’s enough for us to say, here, that one’s exploitation of the enabling conditions involving only grasping them implicitly, would involve just doing the right things in order to see things, and not doing things that are obviously wrong. For example, one would count as implicitly grasping the enabling condition discussed in this and the previous chapter (keeping things within the field) if one followed things with one’s gaze in order to keep seeing them, and did not turn one’s back on them. We might think of the implicit grasp of the enabling conditions as a kind of practical knowledge or know-how, just constituted by doing the right things, in the right circumstances, in order to maintain

perceptual contact with the objects of perception. I think that we should say that the grasp of enabling conditions exploited in looking is implicit, and not explicit.

To see why I think this, consider first that whatever kind of grasp of enabling conditions is involved in their exploitation in looking, it's required that we be able to attribute that kind of grasp to any creature that can look. Nothing to which we cannot attribute this grasp can be said to look, in the active, attentive sense described here. This, I think, is just intuitive. We wouldn't count someone or something as looking unless they did the right things in their looking— moving their gaze to follow moving objects, or to maintain contact with stationary objects as they themselves move, for example. The question is whether their doing the right things constitutes their grasp of the conditions thus exploited, or if it is to be explained by an explicit grasp of the conditions.

Now, children, even those under three, are able to look. They are able to, for example, follow things with their gaze. And they can acquire knowledge about the world from their looking. From this, we can conclude that they have at least an implicit grasp of the enabling conditions. These young children are sensitive to enabling conditions in other ways, too— they are sensitive to the fact that different factors affect whether someone else will be able to touch, smell, see (and so on) a stimulus, in certain circumstances. In an experiment conducted by Yaniv and Shatz, even three year olds 'made meaningful judgements about the effects of occlusion and distance on perceptibility of stimuli to other perceivers'. They also understood

‘the differential effects of occlusion on hearing versus touching’, i.e., that something can be heard, but not felt through a barrier, and ‘assessed correctly the effects of distance on hearing and seeing versus touching’ (1988: 100). It was found that older children —four and five year olds— made fewer mistakes and were able to take account of intensity of stimuli on whether it would be perceived. Nevertheless, even the three year olds had some sensitivity, though perhaps incomplete, to the enabling conditions there are for different modalities.

What Yaniv and Shatz found that the three year olds are not able to do —or at least, much less able to do than the older children— is to give explanations of their own, or other’s perceptions, or lack thereof, in certain circumstances. They can answer ‘Can Ernie see the duck?’ when the duck is behind a wall, correctly (‘No!’) but they cannot say why Ernie cannot see the duck. And this, at the very least, means that we have no reason to think of the children’s grasp of the enabling conditions as anything more than implicit. They grasp the enabling conditions just in that they do the right things in order to look. Other studies have shown that children under the age of four have a more general inability to say how they acquired a certain item of knowledge, for example, by seeing, feeling, or even by being told. O’Neill and Chong (2001) found that this is so even when the children are given the opportunity to show experimenters how they found out, rather than telling them.

The —or at least one— reason why these findings are so surprising and puzzling is that we have every reason to think that children can look at things, and, by so doing,

find out about them. We would not count them as looking, I have suggested, if they did not ‘do the right things’ in order to see, or keep seeing. Whilst they may in some circumstances have trouble understanding which properties or features can be discovered by looking, as opposed to feeling, there doesn’t seem to be any evidence at all to suggest that they ever expect to see things to which their backs are turned, or which are behind opaque barriers.⁴⁷

So, if children did not ‘do the right things’ in order to see, we would not say that they look. And since they cannot apparently give explanations even of particular perceptions, we cannot say that their grasp of the enabling conditions is explicit. And of course, neither do we have reason to think of animals as having an explicit grasp of the enabling conditions for vision, though they competently track objects in their environment, in a way that exhibits implicit grasp of the conditions. We have said that the grasp of enabling conditions involved in their exploitation in looking had better be attributable to creatures that we think can look. Since we cannot attribute explicit grasp of enabling conditions to children under the age of three, or to animals, and yet, both can look, then the grasp of enabling conditions attributable to any creature that can look must be *implicit*.

I should say, finally, that none of this is to deny that adult human perceivers do in fact have an explicit grasp of the enabling conditions for seeing, or perceiving in any other modality. Neither is it to deny that this grasp has some significance for us,

⁴⁷ See for example Robinson et al (2008) for more details on what children of different ages do and do not know about how they have gained a particular item of knowledge.

perhaps allowing us to do things of which animals and pre-school children are incapable.⁴⁸ And, I have said that I am concerned in this thesis primarily with the senses of adult human perceivers. But this is not because our possessing senses somehow depends on our having an explicit grasp of the enabling conditions I will be discussing over the next few chapters. There is no reason to think that, for example, our ability to maintain visual contact with objects depends on this explicit grasp. And nothing I say about the significance of counting all and only those perceptual faculties as senses that have these enabling conditions, will depend on these conditions being ones that are grasped explicitly by perceivers. My focus on adult human perception is entailed, as was said at the end of the previous chapter, largely by my concern with the phenomenology of experience.

In this chapter and in Chapter 2 I have argued that bodily awareness lacks a certain kind of enabling condition that vision has, and that these enabling conditions are manifest in the conscious character of visual perceiving, and exploited in actively visually attending (looking). It is having these enabling conditions, which bodily awareness does not have, that, I will argue, is distinctive about the senses. In the next chapter, we discuss the sense of touch.

⁴⁸ Child argues that mastery of the enabling conditions for seeing is required for one to have the concept of vision (1996: 164ff)

Chapter 4: Touch

In Chapters 2 and 3, I identified a way in which vision and bodily awareness differ: enabling conditions for perception are manifest in the conscious character of visual perception, and not in bodily experience, though that experience, we are assuming, is also perceptual. Furthermore, I argued, these manifest enabling conditions are exploited in looking. In this chapter, I will argue that in touch, enabling conditions are manifest, and exploited in active perceptual attention, too.

Whilst touch and vision thus share a common feature, they also differ in ways that are significant for the argument of this chapter. Perhaps the most obvious is that there are different enabling conditions for touch than for vision. We spoke, in the previous chapter, of making and maintaining perceptual *contact* with objects of vision. To make and maintain visual perceptual contact in this way with an object is just to see and keep seeing it. We may talk, analogously, of keeping feeling an object as maintaining tactile perceptual contact with it. But to touch an object, one makes contact with it in a much more literal way than one does in vision. Something that I touch is in literal contact with me, in that there is no space between me and it; it is ‘on’ me. That tactile perception is enabled by literal contact I will not need to argue, since it is, I take it, obvious. It being obvious, I need not argue, either, *that* this enabling condition for touch is, in some way, manifest to us. But considering features specific to touch, which it does not share with vision, will help us to see *how* it is that contact enables touch, and also *how* it is that in touch, as in vision, enabling conditions are manifest and exploited.

In section 1 I argue that, touch being enabled by literal contact with the body, we can make sense of the notion of a tactile sense-organ, despite first appearances to the contrary. However, touch being thus enabled means that parts of the body serve as a place from which things are perceived in a very different way from the way in which the eyes do in vision. In section 2 I discuss what is involved in contact with a part of the body serving as a sense-organ enabling tactile perception. On Mike Martin's account, when this contact is made, one has bodily sensations that are also tactile perceptions. I will point out the significance to this account of a certain structural feature of bodily sensation, in virtue of which feeling one's body to be a certain way can, in certain cases, be to have an experience of touching something that is beyond one's bodily boundaries. I argue in section 3 that this structural feature of bodily sensation is one of the aspects of experience implicated in tactile enabling conditions being manifest to us, and in section 4, I discuss the way in which we exploit our grasp of this condition in feeling.

1. Organs and enabling conditions in vision and touch

In this section I argue that despite first appearances the notion of a sense-organ is applicable to touch as it is to vision (1.1). However, tactile perception having the enabling condition that it does, parts of the body do not serve as sense-organs in touch in the same way as the eyes serve as the organ of vision (1.2).

1.1 Parts of the body as tactile sense-organs

On the face of it, the idea of a tactile sense-organ faces serious difficulties. Whilst in vision, and also in hearing, smell and taste, there are relatively discrete body-parts involved in perception of the relevant kind, in touch, there doesn't seem to be any such body-part. The obstacle in the way of identifying such a body-part, as Armstrong points out, is that the whole body is tactually sensitive (1993: 211). More often than not, tactile exploration is carried out with one's hands, no doubt because of their dexterity and the fact that unlike other body-parts, we can also, and with ease, use our hands to pick up the objects we touch. But we can and do touch things with parts of our body other than our hands. I can currently feel the floor beneath my feet, and when I drink from my glass, I feel it against my lips. And so on. The whole body is tactually sensitive in that tactile perception of an object is enabled by bringing that object into literal contact with *any* part of the body. This is true even of tactile perception of such insubstantial things as the warm air in the room. Perception of the warm air is enabled by its being in literal contact with me. I feel the warm air in the room because it, or at least, some part of it, is *on* my skin.

If, in asking what the organ of touch is, we want to know which part of the body this organ is, we shall not then get an answer to satisfy. Nevertheless, it being the case that touch is enabled by contact with *any* part of the body, we can say that on any occasion of tactile perception, there is always *a* part or sometimes several parts of the body that serve as an organ in the minimal sense of a place from which things

seem to be perceived, as introduced in Chapter 3.⁴⁹ The part of my body that, on some occasion of tactile perception, serves as the place from which things are perceived is the part of my body *with* which I feel that which I feel, by making contact with it, understanding ‘body-part’, here, as being loosely anatomical. Usually, I feel something, such as my cup, with a part of my body, such as my hand, by making direct contact between object and body-part, that is, between cup and hand. I can only feel some of the properties of which I may be aware in tactile perception, such as the temperature either of the air or of objects, by making direct contact with that which has the property. But the contact that is made with such body-parts and enables tactile perception can also be, in a certain respect, *indirect*.

Tactile perception of temperature aside, I can feel things, in ‘extended touch’ without making direct contact with them.⁵⁰ The most obvious example of extended touch is the use a blind person makes of a stick, to feel their way around. Other, everyday cases of extended touch are my feeling the board at the end of the chalk with which I write, or the ground through the heels of my shoes. When a blind person, or anyone else for that matter, uses a stick to feel around, what they feel seems to be not in the hand that holds the stick, but where it is, at the far end of the stick. This seeming has been experimentally confirmed. It has been found that getting a subject to cross their arms can cause them to misjudge the temporal order

⁴⁹ In many cases, there is not one, but several places on one’s body from which one simultaneously feels things. For example, if I grasp the rim of a glass with my fingers, I feel it at five points on my body. Or, stamping on the ground, I feel the floor on the soles of both my feet. These all seem to me to be distinct places on my body from which I feel things- this is unlike vision, in which, though we have two eyes, normal visual experience has only a single apparent point of origin.

⁵⁰ There are other properties which I can only feel by making direct contact with the bearers of those properties, for example, wetness and dryness.

of stimuli delivered in quick succession to each hand. Shinya Yamamoto and Shigeru Kitazawa (2001) report similar findings when the stimulation is delivered instead to the tips of crossed, unseen drumsticks, held in uncrossed hands. As Moizumi et al. comment on these findings:

If individuals perceive stimuli exclusively at their hands where skin receptors are actually located, the subjective temporal order would never depend on the stick configuration when the hands remain uncrossed (2007: 61)

It has been argued that in extended touch, the body itself seems to be extended so as to incorporate the tool with which things are felt. Iriki et al (1996) found bimodal (vision and bodily awareness) neurons in monkeys which appeared to encode the 'schema of the hand'. During tool use, the visual receptive fields of these neurons extended to include the tool. This, they argue, suggests that the tool was incorporated, temporarily, into the 'hand schema' in the monkeys' brains. This might be thought to suggest that we should understand our feeling something at the end of a stick as an unusual case of feeling something as on the surface of the body. Of course, the stick is not really part of one's body, but, on this view, it seems as if it is when we feel something at the end of it.

However, this would be too incautious a conclusion. The body schema, at least as the term is usually used, is a subpersonal representation of the body that plays a role in movement and posture (Gallagher and Cole 1995). That this schema is sometimes extended to include tools does not show that one's own *conscious* representation of

one's body comes to include the stick in one's hand when one feels something at the end of it. It does not show that the stick seems to one to be part of one's body. And, in fact, introspection tells us that that this is *not* how things seem. Though the object I poke with a stick seems to be at the end of the stick, I feel no *sensation* at the location where stick and felt object meet. The sensation I feel is in my hand. My body doesn't seem to me to extend to the end of the stick, though that which I touch does feel to be at the end of the stick, and not in my hand.

Nevertheless one still makes literal contact with the things one feels in extended touch in a way that one does not with things that one sees. Feeling things that are not in direct contact with my body is not like seeing things at a distance. One still makes literal contact with the things one feels in extended touch, but the contact one makes with them is *indirect*, via contact made with another object. I make contact with the board on which I write *indirectly*, by making direct contact with the chalk, that is in turn in direct contact with the board. There are no instances of what we usually think of as tactile perception in which no contact is made, or seems to be made, with that which is felt, even indirectly.⁵¹ Thus, we can say, we always feel things as being at the limits or boundaries of some object, either those of our bodies, when we make direct contact with the objects of touch, or those of some other object, such as a stick, when the contact made is indirect.

⁵¹ That's not to deny that we can imagine some kind of 'virtual touch' device that simulates normal touch, without actual contact being made with one's body. Still, if such a device were to be sufficiently touch-like then it would have also to simulate such contact being made.

It should not be thought to follow from the fact that in extended touch one feels something at the boundaries of some other object, that the place from which I feel things in extended touch, and thus that which serves as the organ of touch, is the end of the object which is in direct contact with the things which I feel. Rather, what these cases show is that the place *from* which one feels, that is, the body-part serving as an organ on some occasion of touching, is not always the place *at* which one feels that which one touches. As in vision, the place from which things are perceived in touch is the phenomenal point of origin of the experience, that is, the place in relation to which that which is perceived seems to be perceived.⁵² And in all touch, even extended touch, the point of origin is a part of one's body. If I poke an object with a stick I hold in my hand, my hand is still the place *from* which I seem to feel the object, even though the object is not in direct contact with my hand. Thus, parts of the body can serve as the organ of touch without being in direct contact with the objects thereby felt. Nevertheless, these body-parts are, as we have said, in *indirect* contact with felt objects, by being in contact with tools that are in *direct* contact with them. So, though the fact that touch, unlike vision, is enabled by literal contact with the body means that the notion of a sense-organ is, despite first appearances, applicable to touch, it also follows from touch being thus enabled that parts of the body serve as a tactile sense-organ in a rather different way from that in which the eyes serve as the organ of vision. For one, they do not serve, as the eyes do in vision, as the origin of a field, as I will discuss in the next subsection.

⁵² Sorenson (forthcoming) calls this phenomenal point of origin the 'station point'.

1.2 No tactile field

Things don't of course have to be in literal contact with my eyes in order for me to see them. This is not the way in which my eyes serve as the place from which things are seen—the visual sense-organ, minimally conceived. Rather, in vision, the eyes serve as the point of origin of visual experience by being at the apex of the cone-shaped boundaries our awareness of which constitutes vision having a field. The place from which things are seen, we can say, is the origin of the field, whereas places from which things are felt, I will argue, serve as the points of origin of tactile experience, without being the origin of a field. In Chapters 2 and 3 we saw that there being a visual field is to be understood in terms of visual experience having a certain structural feature in virtue of which we are aware of these visual sensory limitations. Visual perception of an object, *o*, is enabled by *o* falling within the region delimited by one's sensory limitations, and defeated by *o* falling beyond them. The idea of a field, and thus of awareness of sensory limitations is not applicable to touch.

To see that it is not thus applicable, consider the way in which, in vision, I move my gaze in order to affect what falls within my visual sensory limitations. Looking straight ahead of me, I see some papers on a desk. Turning my head, and thus my gaze, these things no longer fall within my visual sensory limitations. Now, what falls there, and thus what I can see, is a window, and beyond that, a tree. As I slowly turn my head, the papers gradually pass out of view, the window gradually into it. Now consider a tactile experience as I feel my way along a wall in a dark room. As my hands move along the wall, I feel one part of it after another. If there are tactile

sensory limitations, analogous to those there are in vision, there should be some principled way of saying what falls within them, at a particular time. So, for example, we should be able to say whether what falls within my tactile limitations are just the parts of the wall with which I am currently in contact, or larger portions of the wall than this. This is not to say that in vision, one is always, or even ever, aware of where the boundaries of the region of space fixed by one's sensory limitations lie. We saw in Chapter 2 that one is aware of these limitations not in that one can tell where they are, but in that it seems to one that the region of space within which things are visible from where one is, does not stretch on indefinitely. The point, for our purposes here, is that there is a distinction between things or places that do fall within the visual limitations, and things that don't. Someone standing behind me, for example, does not fall within them.

Furthermore, there is for vision an explanation for why something that falls within the limitations might nevertheless be unseen. If something gets directly in front of me, as I turn towards the window, I will not see the window, and the tree beyond. Occlusion by the intervening object explains why not. There is no such explanation to be had for touch. As Martin writes, 'there seems to be no possible explanation, analogous to occlusion in the visual case why one fails to tactually perceive' (1992: 200–1). And this is an obstacle to the notion of a tactile field. Given the absence of an explanation, analogous to occlusion, for why something that falls within the postulated tactile field is nevertheless unseen, we would have to say that what falls within this tactile field at a given time is either (a) only what is perceived at that

time, or (b) everything. On (a), what falls within my supposed tactile sensory limitations as I creep along the wall are only the parts of the wall with which I'm currently in contact. On (b), the whole of the wall, from beginning to end (and a great deal else besides), falls within the limitations of which I am purportedly aware. If we accept either of these options, it's not clear what the force of saying that we are aware of tactile sensory limitations would be. If only what is currently felt falls within them, in what sense do we have in tactile experience limits within which things are *perceptible*, which is what our awareness of sensory limitations gives us in vision? And if the limits stretch out indefinitely, as in (b), then it doesn't look as if we're talking about anything recognizable as 'limits' any more. There is not the requisite 'boundedness' for talk of awareness of sensory limits to be meaningful. Limitations within which everything falls, are just not limitations.⁵³

So, whilst in vision, the place from which things are seen is the apex and origin of the visual field, there being no tactile field, the place from which things are felt on a given occasion does not serve as the origin of a field. There being no tactile field, we do not feel things as being within a space within which things are tactually perceptible, as we see things as being within a space within which they are visually perceptible. Instead, as we have said in this section, one feels the things one feels at the boundaries of an *object*— usually, one's body. In cases of extended touch, we

⁵³ A mark of there being no awareness of sensory limitations in tactile experience, as in bodily awareness, is that we are not tactually aware of empty space, or at least, not in a way that is analogous to the way in which we *see* it. If I place my hands on the bookends in my example from Chapter 2, I am tactually aware of their locations, and of the distance between them. But my tactile awareness, just like my bodily awareness, is neutral as to the presence or absence of anything between the two bookends.

feel things as at a distance from our body not at a distance from us in space, but at the far end of another object, with which we are, in turn, in direct contact.

This is not to say that we are only aware of those *parts* of objects with which we are in literal bodily contact, directly, or indirectly. We can also be aware of objects we feel extending beyond the parts of them with which we are in direct or indirect contact, and in some cases we are quite good at judging, on the basis of such awareness, how far the objects we feel extend beyond their surfaces with which we are thus in contact.⁵⁴ Solomon and Turvey (1988), for example, report that subjects can perceive the distances reachable by unobserved rods, held in the hand, and moved around from the wrist. Though one can be aware, in touch, of the things one feels as extending beyond the surface with which we feel them, and against which they are felt, one can only be thus aware of any part of something which one feels, by being in bodily contact with it, directly or indirectly.

In this section I have made much of the fact that tactile perception is enabled by contact being made with the boundaries of one's body. The point has not of course been to argue that this is so, since I take it that this is quite obvious. However, from the fact that touch is thus enabled it follows that despite first appearances, the idea of a sense-organ (minimally conceived) is applicable to touch. It is applicable in that on each occasion of tactile perception there is some part of one's body that is the place from which things are perceived. However, we have seen that touch being enabled

⁵⁴ Tactile perception of ambient temperature provides an interesting case. Though I feel the warmth of the air in the room with the surface of my exposed skin, the warmth doesn't seem to be *just* there, on those surfaces. Rather, it seems to me just to be warm *here*. See also Chapter 6.

by literal contact with the body, these parts of the body serve as an organ in a different way from that in which the eyes serve as the organ of vision. Whereas the eyes serve as the point of origin of visual experience by being the origin of the visual field, body-parts serve as the point of origin of tactile experience by contact being made with the boundaries of *an object*— one's body, or in extended touch, those of another object, with which one's body is in turn in direct contact.

In section 3 I will discuss the way in which this enabling condition is manifest in the conscious character of tactile experience, and in particular, the features of the conscious character of experience that make manifest to us this tactile enabling condition. In vision, an enabling condition for seeing is manifest in the conscious character of visual perceptual experience in virtue of the structural feature in virtue of which vision has a field. Since touch does not have a field, the tactile enabling condition just discussed is clearly not manifest in virtue of any directly analogous structural feature of tactile perceptual experience. We need then to appeal to different features of experience in order to explain this tactile enabling condition being manifest. I will argue, in section 3, that tactile enabling conditions are manifest partly in virtue of a structural feature of *bodily* awareness. In order to see how it is that *tactile* enabling conditions can be manifest in an aspect of *bodily* awareness, we need to understand the relation between these two kinds of perception. I will argue in the next section that contact with one's body enables tactile perception because when such contact is made, one has bodily sensations that, in having this structural feature, are also tactile perceptions.

2. Touch and the structure of bodily sensation

In the section following this one (section 3), I want to argue that one feature of experience that makes manifest to us the tactile enabling condition is a structural feature that bodily sensation, and bodily awareness in general, has. In order to understand how this can be so, we need first to be clear on the relation between bodily sensation and tactile perception. In Martin's view, this is a relation of identity: certain bodily sensations just are tactile perceptions.

In this section, I introduce Martin's view that certain bodily sensations just are tactile perceptions. I want to emphasize, in particular, the role played in his account by a structural feature of bodily sensation that we met briefly in chapter 2— this is the very same structural feature that makes manifest to us the tactile enabling condition. AD Smith takes Martin's account to require supplementation— in addition to the conscious character of bodily sensation, on Smith's view, we need to appeal to a phenomenon he calls the *Anstoss* to explain how it is that when we have certain bodily sensations, we have tactile perceptions. I argue that Martin's view does not require this supplementation. It is because bodily sensations have the structural feature to be discussed here that, on Martin's account, we do not need to appeal to anything extrinsic to the conscious character of certain bodily sensations to explain how it is that in having them, we have experiences of touch.

2.1 *The Anstoss*

Consider the experience you have when you press your finger against a hard surface, such as the rim of a glass. An uncontroversial claim about your experience is this: you have a bodily sensation in your finger— your finger feels to be some way to you, and also you have a tactile perception— you feel the glass with which your finger is in contact. But perhaps less uncontroversial is Martin’s view that in this case your bodily sensation, and your tactile perception are identical. Martin writes:

We should think of this case not as one in which we have two distinct states of mind, a bodily sensation and tactile perception, both of which can be attended to; but instead simply one state of mind, which can be attended to in different ways. (1992: 204)⁵⁵

Now one might, as AD Smith does, think that this sounds not just controversial, but also rather mysterious.⁵⁶ One reason for finding Martin’s claim mysterious would be thinking, as Smith does, that ‘*no sensations...of themselves constitute perception*’ (2002: 155, my italics). The pressure sensation I have in my finger as I press it against the glass, on Smith’s view, could occur without even giving me awareness of

⁵⁵ On O’Shaughnessy’s view, the bodily state is the representative vehicle for the tactile state. But this is one of the differences between Martin and O’Shaughnessy’s views that shall not concern us here.

⁵⁶ Smith’s assertion that, in order to be illuminating, the claim that certain bodily sensations just are tactile perceptions requires supplementation might be reinforced by the somewhat misleading wording of the above quote from Martin (misleading, at least, when it’s taken out of context). For the wording Martin chooses here makes it sound as if the bodily sensation of pressure in one’s finger being a tactile perception might be dependent on one *attending* to it in the requisite way. This encourages the thought that it is in some respect ‘optional’ whether this pressure sensation seems to one to be a tactile perception, in the sense that something other than the pressure sensation itself is required in order for the experience one has, when one has it, to be a tactile perception. It should be clear from what follows that it is not in this respect optional.

my body, since sensations of all kinds, ‘of themselves give us notice only of themselves’ (2002: 157). We need not be bothered by this claim here— we are assuming that bodily sensation, and indeed, bodily awareness in general does, as Smith puts it ‘constitute perception’. Bodily sensations are perceptual in that they ‘give us notice’ of our bodies. (I return to this again later.)

However, one might take Martin’s view of the relation between bodily sensation and touch to be mysterious even if one accepts a perceptual view of bodily sensations. The apparent mystery here lies in the fact that not all bodily sensations are tactile perceptions. When I have a headache, or pins and needles in my foot, even if we accept that I thereby perceive my body, I do not, in so doing, have any *tactile* perception at all. And as Smith writes, ‘a throbbing sensation at the end of my finger does not reveal the rim of the glass to me, even if it is in contact with the glass’ (2002: 168). Thus we might think that some further explanation is required, other than the nature of the sensation itself, of why some sensations —such as pressure sensations— are tactile perceptions, when others are not. This is what Smith thinks. And on his view, that to which we need to appeal, over and above anything intrinsic to character of the sensation itself, is a phenomenon he calls the *Anstoss*.

The *Anstoss* is, he writes, ‘a *check* or *impediment* to our active self-movement: an experienced obstacle to our animal striving, as when we push or pull against things’ (2002: 153; Smith’s italics). As I move my finger out through the space in front of me, after a brief while, it collides with the rim of the glass and I can move it no

further. When my finger collides with the glass, I not only feel a sensation at some location at the tip of my finger, at the place where it makes contact with the glass. I also feel my movement checked, through, presumably, proprioceptive and kinaesthetic awareness involving the muscles in my finger, and also in my hand, arm, and perhaps even more extensive regions of my body. And in feeling my movement checked in this way, I feel myself to be, Smith says, ‘sensibly encountering a foreign body’ (2002: 154). I thus, on Smith’s view, feel something external to my body—in this case the glass—not just in virtue of having a sensation of pressure in my finger, but because I feel my own resistance to this pressure, which is to say, the check to my active movement Smith calls the *Anstoss*. For Smith, it is this experience of the *Anstoss* that explains how it is that in the case under discussion, I have not just a bodily sensation, but also a tactile experience—an experience of something beyond my bodily boundaries.

I want to argue in this section that there is no mystery to Martin’s account as it stands—it is not right to think that the *Anstoss* is required to explain our having tactile perception when we have certain bodily sensations (though Smith’s discussion does bring out what is involved in having some of these sensations). We can see that it’s not required, firstly, if we consider the difference between those bodily sensations that are tactile perceptions, and those that are not. In those that are, one’s body seems a certain way that it could not seem without one thereby seeming to feel something beyond one’s bodily boundaries. In those bodily sensations that are not tactile perceptions this is not the case. I discuss this difference in section 2.2.

And furthermore, we get to have bodily sensations that just are tactile perceptions because our bodily sensations have a certain structural feature. Their having this structural feature completes the explanation we need to give of why no appeal to anything extrinsic to the conscious character of the sensations themselves is required in order to explain how it is that in having them, one has a tactile perceptual experience— this I discuss in 2.3.

2.2 Different kinds of bodily sensation

So, we have seen that on Smith's view, something other than the conscious character of bodily sensation itself is required in order to explain how it is that when one has certain bodily sensations, such as those of pressure, one also has tactile perceptual experiences. One reason one might agree with Smith is that it is not the case that every time one has a bodily sensation, one has a tactile experience. And so, one might think, in those cases in which one does seem to touch something, there must be something in addition to the conscious character of the sensation that explains the tactile phenomenology. To see that nothing additional, such as Smith's *Anstoss* is required, we will start by considering a distinction between two kinds of quality of which one might seem to be aware in bodily sensation.

Some qualities of which we seem to be aware in bodily sensations, seem to be objective, mind-independent states of one's body. Pressure is one of these qualities. When one has a sensation of pressure one does not just have a funny feeling of one-knows-not-what at some location in or on one's body. Rather, one seems to

experience one's body as being quite straightforwardly some way at the relevant location. And the way it seems to feel, obviously enough, is *pressed against*. Similarly, in having a sensation of warmth in my arm, I seem to be aware, simply, of my arm being warm. These bodily sensations are ones we can classify, following Armstrong's terminology (1962; 1993), as *transitive*, in that the qualities of which one is thus aware are ones that seem, on the face of it, to be distinct from their being sensed. Thus, we can distinguish between warmth and a sensation of warmth, and pressure and a sensation of pressure.

To have a sensation of heat in the hand is simply *to feel that our hand is hot*: a bodily perception that may or may not correspond to physical reality. To have a sensation of pressure in the back is simply *to feel that something is pressing into our back*. (Armstrong 1993: 309)

Not all bodily sensations are transitive in this way. In other bodily sensations there is not, or not obviously, any state of or happening in one's body of which one seems to be aware in having that bodily sensation. If I have a bodily sensation of pain in my knee, it does not seem to me, just in having that sensation, that there is some way my knee objectively is, in being painful. And if I have pins and needles in my foot, there is no objective quality that my foot seems to have, in feeling that way. These are bodily sensations that we can classify as *intransitive*. In intransitive bodily sensations, there is *at least on the face of it*, no distinction to be made between the

quality of which one is aware, and one's awareness of that quality.⁵⁷ One cannot, (and again, it's enough for us to say here: at least on the face of it) have a pain of which one is not aware, or feel as if one is in pain when one is not. As Armstrong puts it —though this he goes on to reject— 'a pain or an itch is a felt pain or a felt itch, and an unfelt pain or itch is nothing' (1993: 311).

Now, as we have said, a sensation of pressure in one's finger, unlike one of pain, clearly falls on the 'transitive' side of the aforementioned divide. When one feels a sensation of pressure, the sensation not only seems to have some objective, bodily location, but there is also some objective way one's body seems to be at that location. And this goes part of the way to explaining why nothing in addition to the conscious character of the sensation, such as the *Anstoss*, is required in order to explain how it is in this case that one's experience is also a tactile perception. To see this, let's look in a bit more detail at how things seem to one when one has a sensation of pressure.

We have said that a sensation of pressure is an experience of one's body being pressed against. One feels one's body being pressed against in that one feels one's bodily boundaries resisting pressure. This means, of course, that whilst we locate the sensation of pressure at the fingertip against which the pressure is exerted, in this

⁵⁷ Representationalists such as Michael Tye insist that despite first appearances, intransitive sensations such as pains represent objective states of one's body (see Tye 1997; 1995). See Crane (2003) for an argument against Tye's view, and his alternative perceptual view of intransitive sensations, on which for example, a headache is to be accounted for in terms not of some state in which my head is represented as being, but the 'intentional mode' in which I am, in having my headache, related to what is represented.

case, having the sensation, as we say, in one's finger might also involve awareness of the tensing of muscles in one's hand and arm— Smith's discussion of the *Anstoss* emphasizes this point.⁵⁸ One feels this resistance as resistance to pressure *from without*, that is, from beyond the boundary the resistance of which one is aware. As Smith puts it, one feels the pressure as an 'alien force'. No experience that did not feel like one's boundaries were resisting pressure from without in this way would be a pressure sensation. But then, an experience like this of something beyond one's bodily boundaries just is a tactile perception. So, far from it being a mystery how an un-supplemented pressure sensation could be a tactile perception, one would not count as having a sensation of pressure unless in so doing, one had an experience of touching something. And there is similarly no mystery in a throbbing sensation not being a tactile perceptual experience. In having a sensation of throbbing one does not seem to be aware of some objective way one's body is, never mind some way that it could not seem to be, without one thereby seeming to touch something. Thus the explanation of how it is that this sensation can itself be a tactile perception need not be sought in anything in addition to the phenomenal character of the sensation itself, such as the *Anstoss*.

Now, we said in 2.1 that Smith also finds Martin's account mysterious because on his view, bodily sensations are not intrinsically perceptual. This Martin denies. And

⁵⁸ As we will see more below, another virtue of Smith's account is the emphasis he places on one's awareness of one's body resisting, in the awareness one has of pressure. But it does not seem right to say that this resistance need be one's own active resistance. When I feel things press against my inner boundaries (as when I feel a fishbone in my throat), I do feel those boundaries resist, but I am in no position to actively resist pressure to those boundaries. I do not feel the fishbone as a check to my active movement.

as we saw in Chapter 2, Martin's account of the perceptual nature of bodily sensations involves the claim that bodily sensations have intrinsically bodily locations. In having such sensations, transitive or intransitive, we are aware of qualities that seem to be located within our bodily boundaries. Bodily sensations seeming in this way to be phenomenally bodily involves bodily awareness having a certain structural feature. In the next section I explain the role that this structural feature has in our having bodily sensations that are also tactile perceptions.

2.3 The role of the structural feature of bodily sensation

First of all, let's remind ourselves of what Martin says about the phenomenal bodiliness of bodily sensation, and look at how this involves bodily sensation (and bodily awareness more generally) having a certain structural feature. We have already met Martin's perceptual account of bodily awareness in previous chapters. This being his account, Martin would reject—at least one reading of—Smith's claim that 'no sensations of themselves constitute perception', since on his view, there is a category of sensations, namely, bodily sensations, which constitute perceptions of one's body. Assuming the truth of Martin's perceptual account of bodily sensation, we reject the alternative, subjectivist view, on which bodily sensations are 'purely subjective states of mind, which are directed at no object at all, or none that is external or independent of them' (Martin 1998b). We reject this view because all bodily sensations, transitive or intransitive are 'directed onto' one's body, something which is as much a part of the objective mind-independent world as any other object. When I have a headache, I am aware of my head, hurting, and

when I have pins and needles in my foot, I am aware of my foot, and of it having pins and needles.

Bodily sensations are ‘directed onto’ the body in that the qualities of which we are aware in having bodily sensations seem to be internal to one’s body. Martin points out that in order for bodily sensation to have this quality of appearing internal to one’s body, it must incorporate a contrast with ‘external to the body’. Since we cannot conceive of feeling a sensation to be located, but external to the body, and as we saw in Chapter 2, Martin argues that one must be aware of the contrast between internal to and external to one’s body in the following sense:

...wherever one does feel a sensation, to be located, one [also has] a sense that the world must extend beyond that point, the world extending beyond one’s limits being composed of regions of space which one couldn’t at this time be feeling a sensation to be located in. (1992: 212)

This sense that one has in bodily sensation of the world extending beyond the location of any currently possible sensation is, we can say, a kind of awareness of one’s bodily boundaries or limits. And it is a *structural* feature of bodily awareness. We are not aware, in bodily sensation, of our bodily boundaries in that we can always perceive their locations. They are not, in this respect, an object of our bodily awareness. Rather, this kind of awareness of our bodily boundaries is a structural feature in that it is part of the conscious character of bodily sensation that

‘structures’ or ‘conditions’ our awareness of the qualities of which we are aware in having these sensations. It structures this awareness precisely by giving bodily sensation its phenomenally bodily—and therefore perceptual—character.

We have said that this awareness of our bodily boundaries is structural. And thus there is a sense in which it is not the case that our bodily boundaries are, in this kind of awareness, the object of perception. They are not the object of perception in that it is not the case that whenever one has a bodily sensation, and thereby seems to feel something internal to one’s boundaries, one’s boundaries figure in the content of the experience. However, unlike our visual sensory limitations, one’s bodily boundaries are essentially the limits of an object, namely, one’s body. I can’t feel sensations at locations that seem to be beyond my bodily boundaries not because I am limited sensorily, but because that’s how far the object of bodily awareness, my body, extends. I seem to be limited, bodily—it seems as if my body is not all there is. In bodily sensations seeming to be located in a space that extends beyond where any sensation can currently be felt I thus seem to be aware of the boundaries of an object—of the object that is my body, as bounded.

Now, I said above that given this perceptual account of bodily sensation, Martin would not accept *one* reading of Smith’s claim that no sensations of themselves constitute perception. There is however also a way in which it is consistent with Martin’s views that there might be a creature whose bodily sensations were not intrinsically perceptual. We can imagine, he suggests, a creature that had no sense of

the contrast between its own body and the rest of the world. This creature might feel a sensation to be located without thereby feeling it to be internal to its body. But what is important to note about this creature is that in having no sense of its body as bounded in a world that extended beyond it, its bodily sensations would lack the structural features that ours have. Martin's claim is that creatures whose bodily sensations do have this structural feature are necessarily phenomenally bodily, not that bodily sensations *per se* are necessarily phenomenally bodily.

For this reason, Martin's claim is consistent with the *Anstoss* playing some role here. Specifically, it is consistent with Martin's account that the *Anstoss*, or something like it, is involved in bodily sensation *coming to incorporate* awareness of one's bodily boundaries— coming to have this structural feature. Martin is free to accept that a subject who had never experienced the *Anstoss*, such as the creature in the previous paragraph might well be, would not have any awareness of his body as bounded within a space that extends beyond the location of any possible sensation.⁵⁹

Smith writes that for a creature who had never experienced the *Anstoss*:

There would be no sense...of any bodily limits beyond which things might be located. Such a limit, and hence a phenomenal body itself, and hence a tactile distinction between inner and outer, and hence a genuine felt space in

⁵⁹ This might support O'Shaughnessy's (very plausible) view that touch and bodily awareness are interdependent (1989). This is because if one accepts that having an experience of the *Anstoss* is sufficient for one to have an experience of touch, then if bodily awareness is phenomenally bodily in virtue of one's having experienced the *Anstoss*, then bodily awareness is phenomenally bodily in virtue of one's having had a tactile experience.

which we are located along with possible other things emerges only when contact is made with something. Such contact...[involves] the *Anstoss* (2002: 158).

If this is right, then the *Anstoss* is involved in one's coming to be aware of one's bodily boundaries. And perhaps this is true— it looks like it's at least partly an empirical question whether or not it is. But to allow that this may be true is not to allow that Martin's account requires supplementing, as an account of how it is that, on each occasion of having a bodily sensation one feels some quality as being internal to one's body. For Martin, one feels this because one's bodily sensations incorporate the structural feature, however it is that they get to have this structural feature in the first place.

So now, what is the role of this structural feature in some of our bodily sensations being tactile perceptions? We saw in the previous subsection (2.2) that the bodily sensations that are tactile perceptions are ones that one couldn't have, without thereby seeming to be aware of something beyond one's bodily boundaries. In having such sensations, our bodies seem ways, such as pressed against, that they could not seem without it seeming to us that there is something external to the body, in this case, doing the pressing. And it may well look a bit surprising that we can have experiences that are *bodily* but which it is also in the nature of which to tell us about things external to the body. After all, wherever we feel a bodily sensation, our bodies seem to extend to that point. So how could we be aware, in having some

bodily sensations, of something that seems to be beyond the extent of our bodies? But if we keep in mind Martin's account of how it is that our bodily sensations are bodily— that is, because they have the structural feature that we have just been discussing— we may be less surprised.

One does not of course feel something pressing on one from without —from beyond one of one's boundaries— in that one feels a sensation that seems to be beyond that boundary. Rather, it's because our awareness of sensations as internal to the body is constituted by a structural feature that incorporates a sense of a world extending beyond the body, that we can have some sensations that seem to locate things in that extra-bodily world. Bodily sensation involving structural awareness of one's bodily boundaries in the way that we have seen it does, makes room for sensations, like sensations of pressure, that are such that when we have them, we feel things touching us. Only some sensations are tactile perceptions. But those that are get to be so thanks to the structural feature of bodily sensation.

Whilst we have focussed in this section on the relatively uncomplicated case of touching something solid with one's finger, other apparently more involved cases of tactile perception, can be understood in much the same way. First of all, consider a case of extended touch, my feeling something with a stick. This too involves a sensation of pressure. We saw in section 1 that in such cases, that which is felt seems to be located not in one's hand, but at the end of the stick. Now, we've seen that it is not the case that the sensation of pressure is felt, in such a case, at the end of the stick. Rather, one has a sensation of pressure in one's hand (of one's hand resisting

pressure from without) that is such that one could not but have a tactile experience that locates something at the end of the stick.⁶⁰

A second case is Martin's example of grasping the rim of a glass with all of one's fingers. This case is less simple than that in which one feels the rim with one's finger, in that one is aware of the shape of the rim, though one is only in contact with it at five points. Still, one can specify here a bodily sensation that one has as of some objective state of one's body that one could not have without also having a tactile experience. In this case, one feels the pressure of something against one's circular grasp, and thus something circular beyond one's grasp, that exerts the pressure.

Both these cases, like the case in which one feels the rim of the glass with a fingertip, involve sensations of pressure. Most things that we feel seem to exert some pressure, however slight, on our surfaces. Even feeling a light breeze on my arm involves feeling the air blow *against* the skin on my arm, my skin holding up against this extremely slight onslaught. This feeling is entirely absent, however, from the tactile experience I have when the sun shines in through the window onto my outstretched arm. I do not feel the heat press against my skin at all. The bodily sensation I have in this case is thus not an experience of pressure. Feeling radiant heat from the sun, or the cool of the still air in the room though is phenomenally different from just feeling as if one's body is warm, or cool, as when one has a fever. In feeling ambient temperature, what I feel is rather 'warmth (or cool) from

⁶⁰ It is thought that what is detected in virtue of which the felt object is located at the end of the stick has to do with the force received back from one's exploratory activities (Moizumi 2007: 61).

without'. This, like pressure, is a quality of which one could not have a bodily sensation without also having a tactile experience. And just as was true in cases involving sensations of pressure, a sensation of 'warmth from without' could only be a sensation of something *from without* in virtue of it incorporating the inner/outer distinction that is conferred upon it by our structural awareness of our bodily boundaries. One feels warmth from without in the sense that one feels warmth that seems to come from a location beyond that of any currently possible sensation.⁶¹

So, in this section we have looked at the relation that, on Martin's view, there is between bodily sensation and tactile perception. We have seen that, on this view, tactile perceptual experiences just are bodily sensations. This is not, as it might first appear, at all mysterious. The qualities of body of which we seem to be aware in such sensations are ones that we could not feel without seeming to touch something. And we can have bodily sensations like these because bodily sensation (and bodily awareness more generally) has a certain structural feature. In the next section I argue that this feature is one of the features of experience that makes manifest to us an enabling condition for tactile experience.

3. Enabling conditions in tactile perception

That contact with one's body is an enabling condition for tactile perception requires no argument. One thing the discussion of the previous section can be seen to have done is to have helped us to see *how* it is that contact with one's body enables tactile

⁶¹ I discuss the tactile perception of surface temperature alongside gustatory experience of flavour, in Chapter 6.

perception. It enables tactile perception in the following way: when things come into contact with one's body, one has certain bodily sensations which, for the reasons we have discussed, just are tactile perceptions. Neither do I need to argue *that* this enabling condition is manifest to us, since of all the enabling conditions for perception in all the modalities this is perhaps the most obvious to us. What does need to be pinpointed is which aspects of experience it is that make the enabling condition manifest— that is, we need to say *how* it is as obvious to us as it is. This will be my task in this section.

One of the features of experience that makes the condition manifest, I will argue, is the structural feature of bodily awareness we've just been discussing. And now we have given—in the previous section— an account of how it is that some bodily sensations just are tactile perceptions, we can hopefully begin to see how it could be a feature of *bodily* sensation that makes the *tactile* enabling condition manifest. We have seen, in section 2, that when one has a tactile experience, one has a bodily sensation which one could not have without thereby having a tactile perception. That the bodily sensation is in its nature a tactile perception does not mean that one does not also feel one's body to be some way when one touches something. One can still attend (as Martin states in the passage quoted in section 2.1), when one touches something, to the experience one has *as* a bodily sensation. One can attend, that is, to the way one's body seems to be, rather than to that which one seems to feel, beyond the boundaries of one's body. And it seems right to say that it's the way one's body seems when one has a tactile perception that makes it so obvious to us

that touch is enabled (or disabled, for that matter) by contact being made (or not being made) with one's body.

We have seen that one's body can seem all kinds of ways when one has a tactile experience. It can seem to be resisting pressure from something beyond one's boundaries, or from something at the end of a tool, or it can seem to be being warmed by something, for example. And tactile perception, whether of something solid that presses against one or of such relatively insubstantial things as warm air, is enabled by literal contact with that which is felt, that is, by that which is felt being 'on' one's body (or sometimes by that which is felt being in contact with another object which is in turn in contact with one's body). This is manifest in touch because all the ways one's body thus seems are cases precisely of something seeming to *be* in literal contact with one's body— 'on' it. Touch being enabled by literal bodily contact is manifest in the conscious character of tactile experience then because when we have tactile experiences, we have experiences that are also bodily sensations of contact. And now we can see that the structural feature of bodily awareness discussed in section 2 is also implicated in the enabling condition being manifest to us in this way. This structural feature, recall, is that which gives bodily awareness its phenomenal bodiliness, and is the structural awareness we have of our bodily boundaries. This feature is implicated in the enabling condition being manifest because one could not have a sensation of contact if one's sensations did not incorporate a sense of one's body being bounded within a world that extends beyond it, a world of other things that can be in contact with one. And as we have

seen, our sensations do incorporate this awareness of one's bodily boundaries— just in virtue of having the structural feature discussed above.

Other features of experience are also implicated in the tactile enabling condition being manifest to us in the conscious character of tactile experience. One such feature is its temporal, dynamic character. This is most obvious in instances of tactile exploration in which one runs one's hands over things, their properties being thus revealed to one over a period of time. But even relatively brief sensations of contact involve one being aware of something that is essentially temporally extended. Smith's discussion of the *Anstoss* emphasizes, as he puts it, 'the essentially *dynamic* way in which objects are revealed to us' (2002: 168; Smith's italics) in touch. In the *Anstoss*, one is aware of one's own active resistance to pressure from without. Actively pushing against something that pushes against one is a temporally extended happening. But it is no less true of cases in which one feels one's boundaries resist without one *actively* resisting pressure, and may also be true in cases of touch in which no pressure is involved that what one feels is something temporally extended. Feeling warmth on one's skin, at least sometimes, is feeling one's skin warmed from without. Being warmed, like being pressed against, is a temporally extended occurrence. Thus sensations of contact are sensations in which the quality of body (and thus the external object) of which one is aware is disclosed to one over time.

Since sensations of contact involve one's being aware of something temporally extended, ignoring the character of experience over time would be an obstacle to accepting that the tactile enabling condition is manifest to us in the conscious character of touch. The point here is not of course that in touch, sensations that are in themselves subjective, or non-spatial, become objective, or gain spatial content as Martin puts it, 'as a result of some temporal construction'. But once we pay attention to the essentially dynamic, temporal character of tactile experience, we can talk of our being aware of contact, and thus the enabling condition being manifest 'at an instant', in virtue of one's experiencing resistance, or warming, or some other quality, over a period of time which encompasses that instant. We will see in later chapters that being overly concerned with the character of perceptual experience at snapshot-like instants is also an obstacle to recognizing the way in which enabling conditions are manifest in the conscious character of perceiving in modalities other than touch.

Before, in section 4, I look at the way in which we exploit the enabling condition discussed here in actively feeling, I need to address what might thus far look to be a problem for my view. The problem is that so far in this thesis I have made two claims that might look, on the face of it, to be inconsistent. The first claim is that what is distinctive about the senses is that they have enabling conditions of a certain kind, that bodily awareness lacks. These enabling conditions are manifest in the conscious character of experience, and exploited in active perceptual attention. The second claim is that tactile experiences just are bodily sensations. These two look to

be inconsistent because from the first claim, and indeed, from the argument of this section, enabling conditions are manifest in tactile experience. But from this and the second claim it follows that enabling conditions are manifest in some bodily sensations (the ones that are also tactile perceptions). And this might look to contradict the first claim, which says that what is distinctive about the senses is that they have, and bodily awareness does not have enabling conditions that are, amongst other things, manifest in the conscious character of experience.

Now, the conclusion that enabling conditions are indeed manifest in some bodily sensations is unavoidable— they are manifest in touch, and tactile experiences are bodily sensations. However, this does not threaten the first claim, but rather presents the need to qualify, or at least, clarify it. Enabling conditions are manifest in the conscious character of *some* instances of bodily awareness— on some occasions in which we seem to be aware of our bodies. But the only occasions on which enabling conditions are thus manifest in bodily experience are those in which the experiences in question are, and cannot fail to be, tactile perceptions, such as those occasions on which the way one's body feels is pressed against, or warmed from without. We have, at least thus far, no reason to think that there are any bodily sensations in the conscious character of which enabling conditions are manifest.

But in any case, my claim in this thesis is not that what is distinctive about the senses is just that they have enabling conditions that are manifest in the conscious character of perceiving. The enabling conditions that are thereby manifest are, as we

saw in Chapter 3, conditions that have to do with being in the right place to perceive, and are also exploited in active perceptual attention. Since tactile perceptions are identical to certain bodily sensations, any enabling conditions for tactile perception will also be conditions under which one has certain bodily sensations too. But the condition considered here remains an essentially tactile one—it is a condition for tactile perception of objects of touch—a specification of what it is to be in the right place to touch something. We saw in Chapter 3 that, there being no place from which we seem to feel things in bodily awareness, we do not have to be in the right place in order to be aware of our bodies, in the way in which I am in the process of arguing that we have to be in the right place in order to perceive in the five familiar modalities. And in the next and last section of this chapter, in which I look at the way in which the tactile enabling condition is exploited in actively feeling, I reiterate the point, made in Chapter 3, that neither this condition, nor any other, is exploited in bodily attention.

4. Exploiting tactile enabling conditions.

As I shall use the term in this section, ‘feeling’ is to be thought of as the tactile equivalent of looking. By considering what is peculiar to touch, I have considered, above, the way in which touch is enabled by contact with one’s body, and how it being thus enabled is manifest to us. In this final section of this chapter I discuss the way in which this enabling condition is exploited in feeling. ‘Haptic experience’ is used to mean experience resulting from active tactile exploration. We explore things by feeling in a variety of ways: for example, by squeezing, holding and by running

our hands over and round the edges of things. Babies typically feel things by putting them in their mouths, biting and squashing them to find out about them. Whilst the techniques involved in feeling things we feel are various, all are unified by the procedure of putting these things in literal contact with the surfaces of the body directly, or indirectly. In feeling around in the dark for a patch of warm or cool air, I successively put the surface of my body in contact with different regions of air.

Analogous to what we saw to be the case with looking, one way in which we exploit the tactile enabling condition is in order to maintain tactile perceptual contact with the objects of perception. In touch, of course, we maintain perceptual contact with that which we feel, by maintaining *literal* contact (direct or indirect) with these things.

The act of feeling equivalent to 'looking at', is just the staying in literal contact with the thing the properties of which we wish to discover. Consider, for example, holding, and squeezing fruit in the supermarket to discover if it's ripe. One keeps it pressed against one's skin, and thus in tactile contact with it, in order to do so. Or, shopping for clothes, one might run one's hands over the fabric, keeping it at all times beneath, and lightly pressed against one's skin, in order to discover its texture. A doctor, feeling for a patient's pulse, keeps their fingers pressed relatively firmly against a certain spot on the wrist, maintaining contact with that location on the patient's body, waiting for the feel of the blood beating under the skin.

There is a special place in touch for perceptual activity the goal of which is the performance of some action. In these activities, too, one exploits the manifest tactile enabling condition in order to maintain contact with the objects with or on which one acts. But one exploits the condition in order not to find out about things, but to act with or on them. A tennis player maintains tactile contact with the racquet in order to perform a serve, or return a shot. Riding a bike, I keep the soles of my feet pressed against the pedals of the bike, and my hands against the handlebars. When writing, I maintain tactile contact with the pen, pressing the fingers with which I hold it against its surfaces. And I maintain tactile contact with the surface on which I write, too, feeling it resisting the pressure of the pen that I press against it.

In looking, we have seen, we keep things within a region of space delimited by our sensory limitations in order to keep seeing them. Touch, as we said earlier in this chapter, does not involve awareness of a region of space within which things are tactually perceptible. In order to keep things where I can feel them, I have to keep them not in a region of space, within sensory limitations, but on the boundaries of an object, usually, but as we have seen not exclusively, the object that is my body. Because the whole body is tactually sensitive, I can keep in tactile contact with an object though it moves from one hand to the other, or moves, say, up my arm and over my shoulders, for example, as a spider or pet hamster might do. I can keep track of the ambient temperature around a heat source, such as a radiator, though I hold in front of it now one hand, now the other, and now a foot. Very large objects, I can clamber over and around, keeping them in contact with different parts of my

body as I do. Since it need not be surfaces of the body with which I feel things, I can keep in tactile contact with an object by pressing against it with a stick, or other tool, perhaps at the same time as I feel it with a hand or my feet (think of the way a skier keeps in contact with the ground beneath them using skis and two poles).

I can also exploit these conditions in order to disable tactile experience of things. Many of my current tactile experiences are not the result of chosen tactile activities but a consequence of the fact that my whole body is tactually sensitive. So, as I sit at my desk, I can feel the floor beneath my feet, the chair I'm sitting on, the warm air on my face. I can put an end to these experiences by moving, so that these things are no longer in contact with me.

There is, in principle, no limit to the purposes to which one can put feeling. What all cases have in common is that one must exploit the tactile enabling condition in order to stay in contact with what one feels (or put an end to that contact) if one is to achieve these purposes. Though the contact which one makes and maintains with things in vision is not literal, we saw in Chapters 2 and 3 that one also exploits enabling conditions that are manifest in visual perception in order to keep perceiving them, and thus to maintain perceptual contact with them in a non-literal way. In this, touch and vision differ from bodily awareness. There are no obvious conditions to be exploited in order to keep in contact with my feet, or my hands. On Martin's view of touch, which we have discussed in this chapter, where there is touch, there is also some form of bodily awareness. There is the bodily sensation that just is a tactile

perception, and there might also be other bodily sensations too. When I feel the rim of the glass with my finger there is a pressure sensation in my finger, and if I press hard enough, there will be a sensation of pain there too. When I feel the warmth of the sunny patch in the room, there is also the sensation of my skin being warm. Exploiting the tactile enabling condition in order to disable some tactile experience also puts an end to a bodily experience. When I remove my finger from the glass, I no longer feel the pressure sensation in my finger, and though the pain may linger a little longer, I at the very least shorten its duration by leaving the glass alone. Moving my arm out of the sunny patch cools my skin. And my purpose in exploiting the tactile enabling conditions in these sorts of cases can be precisely to end the sorts of bodily sensation I have.

However, this is not exploiting a manifest enabling condition for bodily awareness. One may by exploiting tactile (or indeed other) enabling conditions, bring an end to a bodily sensation of some sort. Similarly, I can scratch an itch, squeeze a stubbed toe, or rub cold hands to warm them. These too are things I can do to stop bodily sensations in parts of my body. But what I am unable to do is exploit conditions in order to put an end to bodily awareness, *per se*, of the objects of such awareness, namely, parts of my body. I can scratch an itch on my foot and get rid of the itch, but I can't exploit my grasp of any enabling conditions to put an end to my awareness of my foot. I can't move out of the place in which I have to be to be aware of my foot, because my foot insists on coming with me. And concomitantly, because of the relationship between touch and bodily awareness, my maintaining tactile contact

with something may also ensure the persistence of a bodily sensation, and this persistence may be my aim. For example, I might hold my coffee cup in my hands in order to warm them. Similarly, I can deliberately hurt myself, by pressing something sharp or hot into my skin: there are things that can be done to bring about bodily sensations in parts of my body. But what I don't have to do is exploit conditions in order to have, or keep, awareness of these body-parts in the first place. I don't have to, for instance, keep myself pressed against things, or in warm air, in order to keep track of my hands and feet and the body of which they are part. There is no staying in the right place involved in staying in contact with what I perceive in bodily awareness, as there is in the case both of touch and vision, and, I will argue in the next chapter, hearing.

Chapter 5: Hearing

In this chapter I argue that in hearing as in seeing and touching, there are enabling conditions of a certain kind that are manifest in the conscious character of perceiving, and exploited in active attention. There are very many questions that can be asked about hearing, in-depth discussion of most of which will be beyond the scope of the chapter. Nonetheless, it will be important for me to say some things about these more general questions, and in particular about the question of what things we hear, and thus, what things auditory enabling conditions might be conditions for experience *of*. I consider this question in the first section of the chapter. In the second section I argue that enabling conditions for auditory experience of these things are manifest in the conscious character of auditory perception. And in the third and final section I argue that we exploit these conditions in listening.

1. What things do we hear?

The obvious answer to this question is that we hear sounds. ‘Sound’, writes Geoffrey Warnock,

is the ‘tautologous accusative’ of the verb ‘to hear’; it is logically necessary that if I hear at all, I hear a sound, and it would be obviously incorrect to use

'sound' as object to any of the verbs 'see', 'touch', 'taste' or 'smell' (Warnock 33–34).⁶²

One reason we might doubt this claim of Warnock's, is that we can also hear silence: the absence of sound.⁶³ But even if we accept that silence can be heard, we might accept that when we're hearing, and are not hearing silence, we always hear sound. And though this may be true, it is to say nothing at all about the nature of the sounds that we hear. In the first part of this section (1.1) I will consider the question of what sounds are. Warnock's claim that 'if I hear at all, I hear a sound' also leaves open the possibility that I may also hear things in addition to sounds, though only when I also hear sounds. I argue in the second subsection (1.2) that this is in fact the case: I argue that we also hear the sources of sounds, and the non-sound events in which they participate. The questions addressed in this section deserve much more consideration than I am able to give them here. I consider them only in so far as they impact upon my claim that auditory enabling conditions are manifest in auditory experience.

1.1 What are the sounds we hear?

In this subsection I argue that it is most plausible to think of sounds as events. Several accounts of the nature of sounds are consistent with the view that sounds are events. It will not be necessary here for me to choose between them; my intention, rather, is to rule out some views, rather than to rule one particular view in.

⁶² This claim is not at all threatened by the occurrence of Synaesthesia. As Fiona MacPherson remarks, there is no reason to think of Synaesthesia as involving experiences in which 'a property normally experienced only in one modality is experienced as either being in a different modality or as being a property of some object or feature normally detected only by a different modality' (2007:3)

⁶³ See Sorensen (2008) and Phillips (forthcoming).

As discussed in Chapter 1, one common way of individuating the senses is by means of properties or objects that are only perceived by certain senses: by their ‘special sensibles’, or key features (see for example Roxbee-Cox 1970). The special sensible of hearing is sound, of vision (perhaps) colour, of smell, odours, and so on. The philosophical question ‘what are sounds?’ arises from the fact that, as Martin puts it, ‘sounds count as phenomenal objects in auditory perception in a way that colours and shapes do not in vision’ (Martin 1997: 93). To say that sounds count as ‘objects’ is not to say they count as material objects. They are, perhaps, better described, as AD Smith suggests, as ‘physical phenomena’ (2002: 135). They nevertheless are akin to objects in the broader sense that unlike colours, we don’t usually think of sounds as perceptible properties of objects that we perceive. Rather, we usually think of sounds as themselves the bearers of perceptible properties. The philosophical question ‘what are sounds?’ is thus the question of how we should understand these peculiar objects of hearing— the bearers of audible properties such as pitch and loudness.

It might seem that the question ‘what are sounds?’ is a question for physics rather than philosophy, and that the answer is already well-established: sounds are, as the Oxford dictionary puts it, ‘vibrations which travel through the air or another medium and are sensed by the ear’. Moreland Perkins is amongst those philosophers who argue that this dictionary definition is in essence correct.⁶⁴ On his view, a sound is a train (or several trains) of waves in the air (or another medium) having one end at

⁶⁴ Aristotle seems also to have had something like this view of sounds. Though see O’Callaghan (forthcoming (a)) who suggests that Aristotle’s remarks are also consistent with his own event view.

the sounding object which is the source of the sound, and the other end at the ears of a perceiver (1983: 169). The main problem with what Casey O'Callaghan calls the 'wave view' of sounds is that, at least on the face of it, it makes auditory experience, as Nudds puts it 'generally non-veridical' (Nudds forthcoming) with respect to its spatial content. At the very least, it does not locate sounds where we usually take ourselves to perceive them as being located. On the wave view, when I hear a sound, say, of a car passing on the street outside, the sound I hear is located in the air between myself and the car. But that's not how I tend to think that things seem to me. It seems to me as if what I hear is not only in some direction, but also at a certain distance from me, and intuitively, in most cases, it seems as if sounds are roughly where their sources are.⁶⁵ Of course, it is possible that auditory experience is generally illusory with respect to the location of sounds. The wave theorist might be content to bite this bullet and adopt some kind of error theory of our experience of the location of sounds. But, arguably, it is a good general principle to avoid the conclusion that a perceptual system is generally non-veridical in this way, if possible. After all, we assume that our perceptual systems evolved in such a way as to be useful to us. And a system that yields experiences that are always illusory can be of very limited use, plausibly anyway.

In response to this difficulty, Robert Pasnau has argued that reflection on where we hear sounds as being should lead us to reject the wave view of sounds. Contra

⁶⁵ I don't want to rule out that we sometimes seem to hear sounds other than where their sources are. For example, very loud sounds such as explosions sometimes seem, literally, to 'surround' one, whilst their sources do not seem, in the same way, to be all around. I also don't want to rule out that we might, or do have experiences of sounds that don't seem to be located at all.

Martin's remarks, quoted in the first paragraph of this section, we should, Pasnau writes, 'insist on putting sound back where it belongs, among the various sensible properties of objects: among colour, shape and size' (1999: 324). On Pasnau's view, sound, like colour, is a property of sounding objects. Objects 'have' sounds, on this account, just as they 'have' colours. Specifically, sounds are vibrations of those objects, or (to allow for a dispositional account) properties which supervene on these vibrations (1999: 316). This view avoids committing hearing of being generally non-veridical, by locating sounds just where we usually think we hear them as being—where their sources are. Whilst this view might well do better at reflecting the spatial character of auditory experience than the wave view, it runs into difficulties elsewhere. And the most significant problem is that sounds just don't seem to fit the ontological category of properties of objects. Firstly, to make sounds properties of objects is seemingly to overlook the fact that objects do not *have*, but rather *produce*, sounds. There is a *causal* relation between sounds and the things that make them, reflected in our talk of sounds— we talk about the sounds that things make, produce, emit, not (or rarely) of the sounds that things have. What is more, sounds don't have the right kind of temporal profile to be properties of objects. Properties of objects are instantiated. And whilst their being instantiated may be something that obtains at or for a time, sounds do not obtain, but *occur*— they have duration, a beginning and an end. They involve change, and have temporal parts or stages. Sounds then, do not seem to be the sorts of things that can be thought of as properties of objects.

The considerations raised against Pasnau's view that sounds are properties, especially those concerned with the temporal profile of sounds, suggest that sounds should be understood as some kind of occurrent, such as events or processes. Theories of sound that take them to be events use the term loosely, insensitive to the distinction that might be made between events as changes in the world that occur *at* a time, and processes as lasting *through* a time (see Scruton 1999: 9). Event-theorists adopt the term 'event', as a 'general term to cover 'things which occur'' (*ibid.*). The use of the term here is also intended to be understood in this way.

The lesson to be learnt from the criticisms made of the wave view is that our theory of sounds should at least have the resources to explain why it is that these events seem to be where their sources are (or at least, why it is that we take it that this is how things seem). In this vein, Casati and Dokic (1994, also 2005) argue that a sound is not a property of an object, but an event occurring in it. The sound seems to be located where the source is, on this view, because that's precisely where it is. The car's sound, as it passes on the street below, is 'identical with, or at least supervene[s] on, vibration processes in it' (2005). This view avoids the perils of accusing hearing of being generally non-veridical with respect to location, because it has the consequence that sounds are just where we (usually) take ourselves to hear them as being— at their sources. On this view, the vibrations in the air between the source of a sound and its hearer are not to be identified with the sound. Rather, they carry information to the perceiver about the sound, which is 'in' the source.

There are alternative views as to which event should be identified with the sound made by a source. On O'Callaghan's view, sounds are 'relational' events, involving both source and medium. According to him, a sound is the event of the medium being disturbed by the vibration of an object: 'sounds are the events in which a medium is disturbed or changed or set into motion in a wave-like way by the motions of bodies' (forthcoming: 13). The sound of the car, on this view, is the vibration of the car causing the air around it to vibrate. Again, as on Casati and Dokic's view, O'Callaghan has it that sounds are where we usually think that we hear them as being— where their sources are, or roughly there. And both views can accommodate the intuition that sounds are produced by their sources, or at least by events involving their sources (more on this later).

One difference between Casati and Dokic's and O'Callaghan's views, is that the latter has as a consequence that there are no sounds in a vacuum, as Berkeley also argued. This is because, on this view, the occurrence of a sound requires that a vibrating object set its surrounding medium vibrating. Thus if there is no medium, there can be no sound. A third alternative as to where the sound-event is located is suggested by Roy Sorensen's attempt to make the wave view of sounds consistent with the phenomenology of sound-location. On this alternative view, as on O'Callaghan's, there are no sounds in a vacuum. The proponent of this view accepts that sounds are events, but locates them exactly where the wave view locates them—in the medium between source and perceiver. On this view, sounds are events in the medium itself. Whilst this view doesn't locate sounds where we hear them as being

—at their sources— it does provide an account of *why* we hear the sounds there. We should understand, Sorensen suggests, the phenomenology of locatedness as governed by analogous principles to those used by seismologists in identifying the location of an earthquake. A sound, on the wave view, is a ‘big rapidly expanding phenomenon’ (2008: 282). An earthquake, similarly, is a ‘series of shockwaves’. Nevertheless, seismologists locate earthquakes at their epicentre— the location on the surface of the earth above the ‘failure’ of rocks in Earth’s crust that caused the shockwaves. This choice of location is pragmatic— the quake cannot be located by its outer edges since these are not discernible. Similarly, the outer edges of a sound are not discernible to us. Thus, Sorensen suggests, our perceptual systems have evolved so as to ‘orient toward the centre’ (2008: 284). And this explains, on his view, why it seems to us that sounds are where their sources are.

Amongst event views then there is room for disagreement as to which event we should identify with the sound we hear. I don’t propose to choose between these alternatives here. All three views can be seen as preserving some of the benefits of the wave view and the property view, whilst avoiding some of their difficulties. There might be other options as to which event to identify with the sound one hears.⁶⁶ For my account here, these details don’t matter very much. My conclusion is just that given the considerations raised here, we should think of sounds as events of some kind that occur in or more or less around their source. Before I move on to

⁶⁶ Alternatively, we don’t seem to introduce any new difficulties if we argue that sounds are not events, but properties of events of some kind. Whilst sounds don’t seem to be the right kind of thing, temporally speaking, to be properties of objects, they might be properties of events. I don’t say anything more about this option here.

consider the question of whether we hear anything other than sounds, I want to look, very briefly, at one other way of responding to the problems faced by the wave view of sounds.

This way of responding is provided by Matthew Nudds. Recall that the problem for the wave view was that it locates sounds in the medium between source and perceiver. *Prima facie*, we usually hear sounds where their sources are. Thus the wave view of sounds makes auditory experience generally non-veridical, on the assumption that we are right to say that we hear sounds where their sources are. Both property and event views of sound try to avoid this difficulty by locating sounds at their sources. Nudds' response is to deny that we hear sounds where their sources are, by providing independent grounds for thinking that in fact, we don't hear sounds as being anywhere. What we hear as located, on his view, are not sounds, but the sources of sounds. On what grounds does Nudds argue that we don't hear sounds as located?

What sounds we hear is determined by the way in which the auditory system groups the frequency components which reach our ears. And, Nudds writes,

...we cannot explain why the auditory system groups the frequency components that it detects in the way it does other than in terms of a process that functions to extract information about the objects that produced those frequency components...The auditory system groups together all and only

frequency components that are likely to have been produced by the same source *because* they are likely to have been produced by the same source (Nudds forthcoming: 7).

The principles by which the auditory system groups frequency components into sounds are a matter of which components are most likely to have come from the same source. There are, as Nudds writes, ‘relationships that exist between components produced by the same source that are unlikely to exist between components produced by different sources’ (forthcoming: 6). The auditory system exploits these relationships in grouping components into the sounds that we hear. Now, in visual perception, there is reason to think that features are grouped into the objects we see on the basis of spatial location. Features detected in the same location are grouped into a single seen object.⁶⁷ Nudds argues that the grouping of frequency components into sounds in hearing is not performed on the basis of spatial location, unlike grouping in vision (12). This makes, Nudds says, ‘ecological sense’, since ‘the transmission of sound waves —with frequency components being detected only after they have been reflected off and refracted around other surfaces— disrupts spatial cues and makes them unreliable’ (14). The auditory system instead groups components that bear certain harmonic and temporal relationships to one another, relationships that are much more likely to be reliable indicators that the components thus grouped all have the same source. Nudds argues that this gives us reason to think that sounds are ‘not intrinsically spatial’:

⁶⁷ See, for example, Treisman 1996. Also Campbell 2002 and Matthen 2005 for discussion.

Given that the auditory system's grouping of frequency components determines what sounds we experience, the fact that groupings are not spatially individuated suggests that sounds aren't either (forthcoming: 14)

In denying that we hear sounds as located, Nudds does not deny that auditory experience is phenomenally spatial. But on his view, what are heard as located are not the sounds themselves, but their sources—the things that make the sounds. The spatial phenomenology of auditory experience, on Nudds' view, does not derive from the stage of processing at which frequency components are grouped into sounds. Rather, it derives from the next and third stage, at which information is extracted from the sounds that are the result of this grouping, about the sources of these sounds. Amongst this information is spatial information. And it's therefore, on Nudds' view, the sources, and not the sounds themselves, which we should understand as seeming to be located in hearing. If this is right, then the wave view is not inconsistent with where sounds seem to us to be located, because they do not seem to be located anywhere.

One problem with Nudds' view is as follows. Intuitively, we never hear the sources of sounds without their making a sound that we hear. We hear sources only when we hear their sounds. In this respect, if in no other, hearing sources depends on hearing the sounds they make. This is consistent with hearing sounds being dependent on hearing sources, in other respects. In particular it is consistent with Nudds' claim that hearing sounds depends on hearing sources, in that we have to understand the

processes involved in grouping frequency components into the sounds we hear as grouping components likely to have come from a single source. Now, according to O’Callaghan, the view that we hear sources as located and their sounds as unlocated, is a ‘precarious’ one. I take it that O’Callaghan’s intuition is that this is precarious because, as we have said, hearing sources is dependent on hearing sounds in that we only hear them when we hear their sounds. This being so, it’s just very difficult to understand how we are supposed, on Nudds’ view, to hear a source’s location when we hear its apparently unlocated sound. A view such as O’Callaghan’s (or indeed Casati and Dokic’s) on the other hand, gives us a quite intuitive and plausible account of how we hear sources as located, that is, by hearing sounds as located where their sources are. For this reason, for the purposes of discussion here I will put Nudds’ claim that we don’t hear sounds as located to one side. I will return to his claim that we hear the sources of sounds shortly.⁶⁸

This discussion of the nature of sounds has been not at all exhaustive. Rather than defend one particular view, my intention here has been to rule out, at least for the purposes of this chapter, some views about the nature of sound. My rather limited conclusion is that the sounds we hear should be thought of as events of some kind, leaving open which event is to be identified with the sound one hears. In the next subsection I discuss our awareness in hearing of things other than sounds.

⁶⁸ I presume also that if Nudds is right about the metaphysical status of sounds as particularized types, event views could be easily adapted to be consistent with the re-identification practices on which this claim is based. Vibratory events could be said to instantiate, rather than being identical with sounds. And that which seems to be located where the source of the sound is could then be said to be not, strictly speaking, the sound, but it’s instantiation. Furthermore, the conclusions of the second and third sections of the chapter, which are the most important for my thesis, are independent of any claim as to what sounds are. I include this discussion largely because it seems impossible to talk about sounds without making some claims as to what and where sounds are and seem to be.

1.2 What else do we hear?

We have already seen, in 1.1, one argument for thinking that we hear the sources of sounds. Nudds, we said, argues that since we have to think of the subpersonal mechanisms underlying audition as functioning to tell us about the sources of sounds, these sources had, if you like, *better* be represented in the content of experience. In this section I want to give some account of what our awareness of the sources of sounds might consist in.⁶⁹

Nudds (2001) argues that one way in which we are aware of the sources of sounds is in the bimodal experience of the production of sounds. The experience is bimodal in that it is partly auditory and partly visual. An example of such an experience is that of ventriloquism, in which it seems to us (illusorily) as if the voice we hear is produced by the mouth of the puppet. And this kind of experience is a very common one, exploited particularly by film-makers. Andy Hamilton discusses a comment of Michel Chion's, that 'film-makers in the early days of sound worried that audiences would be confused about the location of screen-sounds'. It was thought that the discrepancy between the location of on-screen action, and of the loud-speakers from which the sounds of such action emerged would be perceived by film-goers. But, as Hamilton goes on to say, 'it turned out that footsteps are heard as coming from the location of the actor who is walking or running, and so on, rather than as coming from the cinema sound-system' (forthcoming: 23). As in ventriloquism, one experiences, when watching a film, sound as produced by its source, due to an

⁶⁹ We might think that we also hear things that whilst not sounds, are composed of sounds, such as musical phrases (see Matthen forthcoming).

interaction between vision and hearing. In such an experience, we're aware of the object which is the source of the sound, producing the sound. But on Nudds' view we do not have any purely auditory experience of the production of sounds by their sources. I want to argue that we do have experiences that we might think of as purely auditory experiences of the production of sounds. I will argue as follows: In addition to sounds, we hear other, non-sound events. Experiences being as of these non-sound events is not independent of their being as of the sources of sounds, which are 'participants' in these events. And there is reason to think that the apparent relation between sound and source is that of production.

Firstly, then, to argue that we hear non-sound events. For simplicity's sake, I will, in what follows, adopt O'Callaghan's view of which event is the sound that we hear. My claim is that when, for example, a glass breaks we hear two events. There is the non-sound event of the glass breaking. And there is the 'sound' event of the glass's vibration setting the medium vibrating. The two events are distinct, first, in that one in some way 'generates' the other. They are also distinct in that they have different temporal properties. For example, the breaking may be a briefer occurrence than the sound it makes, or the sound it makes may occur shortly after the breaking. Or, the non-sound event may be 'continuous' in a way that the sound is not. To take another example, consider the difference between the event of walking, and the sound that walking produces. The sound of walking is 'interrupted'— we hear one brief footstep after another, alternating with brief periods of silence, or background noise. But walking is a continuous event— someone is not only walking at the moments

when their feet hit the ground, though their walking only produces sound at those moments.

The sound and the non-sound event also differ in properties other than their temporal properties. For example, putting aside as we have the view that sounds are properties of events (see n66), only sounds are the bearers of ‘purely auditory’ properties, such as pitch and loudness. Sounds either are, or supervene on, vibratory phenomena; on O’Callaghan’s view, events of an object causing its surrounding medium to vibrate. In turn, the purely auditory properties of pitch and loudness bear some special relationship to certain properties of such a vibratory event. The pitch of a heard sound is related to the frequency of this vibratory event. The loudness of a sound is, as Goldstein tentatively puts it, ‘closely associated’ (2002: 339) with its pressure. The tentativeness of these claims is due to the fact that the relationships between pitch and frequency, and loudness and pressure are not straightforward. For example frequency and pressure interact in determining the heard loudness of a sound. And there are many possible accounts of the relation between sounding high-pitched and being high-pitched, analogous to those of the relation between, for example, looking red and being red. Whatever the relationship is between sounds and their properties on the one hand and vibratory events and their properties on the other, the close association between the two gives reason to think that only sounds have pitch and loudness. Non-sound events such as walking and breaking do not have these purely auditory properties. Whilst we do sometimes talk of occurrences that are not themselves sounds, such as walking, as having auditory properties including pitch

and loudness, I think we might follow Perkins in taking such talk to be elliptical. What has the auditory properties is not the walking, but the sound. Occurrences such as ‘hammerings and crackings’, he suggests, ‘may be loud or piercing or sharp in the sense that each of these produces a sound that has one or more of these audible sensible qualities’ (1983: 166).

Walking and breaking then are events distinct from sounds. In what sense are we aware of these sounds, *and* of the non-sound events? We are aware of both of them in that we can and do selectively attend to the properties of the sound— its pitch, loudness, temporal properties and so on— or to the properties of the other non-sound event, such as *its* temporal properties. Let’s look again at the example of hearing walking. One can attend, in this experience, to properties of the sound itself. For example, to the loudness of what is heard, and to its pitch. One would hear something, perhaps, of relatively low pitch, at such-and-such a volume. These properties, as we have said, are properties not of the walking, but of the sound. And one can also attend to temporal qualities that are features not of the walking, but of the sound. So, for example, one might attend to the sound’s coming and going as one foot after the other makes contact with the ground— it is the sound, and not the walking, that comes and goes in this way.

In addition to those of the sound, one can, in this case, attend to properties of the walking. In so doing, I will not attend to pitch and volume. The properties of the walking event might include temporal features that differ from those of the sound.

For example, whilst a property of the sound is that it comes and goes with the footsteps the walker makes, a property of the walking might be that it lasts, uninterrupted, for two minutes. Whether I attend to the properties of a sound, or the properties of an audible non-sound event will depend partly on my interests and purposes in listening. In musical listening, I will characteristically attend to the properties of the sound, and not properties of the non-sound event.⁷⁰ And there may also be unusual cases in which I can only listen to the properties of the sound. For example, in hearing the kind of pure tone that is sometimes used in experiments on hearing, there might not be any properties that I can attend to other than pitch, loudness, and perhaps location. In such a case the sound is, in Scruton's words, 'the complete object of ...aural attention' (1999: 3).⁷¹

Now, events such as walking or breaking are events in which, loosely speaking, something does something, in these cases, walks, or breaks. Some non-sound events that we can hear and so attend to are ones in which something performs an activity, such as walking, or jumping. Others are ones in which something happens to something, such as being broken, or squashed. But in both cases, whether the object is the sufferer or performer of what happens, there is a loose sense in which it still *does* something, even if it is just to suffer or undergo. These 'doers' are the very things we think of as the sources of sounds. And, I want to say, when our experiences are of non-sound events they are essentially of something doing

⁷⁰ Although Hamilton (forthcoming) argues it's not quite so straightforward.

⁷¹ Listen here: <http://www.jhu.edu/~signals/listen/C.wav>

something, construed loosely. And in this way, we are aware of the things that are the sources of sounds.

Our auditory experiences of non-sound events being essentially of something doing something, and therefore of the sources of sounds, is not something in addition to their being of the non-sound events. Being aware, when one hears a series of evenly spaced sounds of a certain kind, of *walking*, is just being aware of *something walking*. It is not clear that one could make sense of one's being able to attend to such an event, without one's attending to it as an event that has a 'doer', that brings the individual sounds together, as their source.

One thing that the sources of sounds can do, and of which we are aware, is *move*. And in the case of hearing movement there is special reason to think that we are aware of the sources of sounds. As the car goes past below my window, I hear something move, and quickly. But what is it that I hear move? We do talk about sounds moving, as we talk about other events, such as parties and battles moving. But strictly speaking, events such as sounds, parties and battles do not move. When something, such as a car, moves from one location to another, the whole of it is thus relocated. Cars are present in their entirety at each instant at which they exist (which is not of course to deny that bits can drop off them). But when the car goes past my window, it is not the case that its sound, being an event, is relocated, as the car is. Sounds are events. And, as Peter Hacker writes,

...at any given time during the period in which an event occurs it is not the case that the whole event occurs. At best, only a phase of it occurs (1982: 15)

If an event starts at some location l_1 and ends many miles away at l_2 we should not think of the event as having moved from l_1 to l_2 . Rather, one phase of the event occurred at l_1 , and another, some time later, at l_2 . If this event is a sound that we hear then what we hear is not the sound moving, but successive phases of the sound occurring at different locations. Though events do not move, the objects that participate in them —the guests at a party, the soldiers in a battle, the sources of a sound— do move. Thus to accommodate the fact that we do have auditory awareness of movement we should say that what we hear as moving is the source of the sound, in this case, the car.

That we hear events such as walking and breaking, and thereby things such as people who walk and glasses that break is not unfamiliar to common sense. It is how we usually think about hearing. To take Berkeley's example, 'common speech would incline one to think' (1910: 33) that on hearing the sound of the rumbling of a coach driving across cobbles, we also hear the coach driving across the cobbles. On Berkeley's view, however, the idea that one has of the coach driving across the cobbles, on hearing its sound, 'proceeds from reason and memory' (1988: 153). One hears, on his view, only a sound, which one knows from experience to be 'connected' with a coach driving across cobbles. The coach driving across cobbles is not then on this account 'properly perceived by sense, but suggested from experience' (1988: 153). The details of Berkeley's claim here are unclear; in

particular, what he has in mind by ‘suggestion’ is not obvious. For our purposes, the important point is that what we call hearing the coach driving over the cobbles will be on Berkeley’s view at least partly a cognitive affair— a matter perhaps of believing, on the basis of repeated experience, that that is the kind of thing that one hears.^{72,73} This would seem to be the right thing to say about the way in which, for example, I might sometimes have an experience as of a clarinet playing. It seems plausible that my doing so involves my recognizing the timbral quality of the sound I hear as that which characterizes the sound of a clarinet. My recognizing the sound as that of a clarinet may well have an effect on the phenomenology of my experience, and thus we might say that this is one way in which I am ‘aware’ of the sources of sounds. But this is not the way in which I am claiming that we are aware of non-sound events, and thereby of the sources of sounds which participate in these events. For one, it need not be that, when one has an experience as of some non-sound event such as walking or breaking, it seems you that the event is precisely one of walking, or breaking. Rather, the claim is just that you seem to *hear something doing something*— you may have no idea what’s being done, or what sort of thing is doing it.⁷⁴

In addition, seeming to hear non-sound events and their participants is to be distinguished from information about these events and things being available in what

⁷² See also O’Shaughnessy, according to whom we make only ‘thought contact’ with the sources of sounds (2002: 453).

⁷³ For discussion of this example see Jackson (1977:5), Armstrong (1961:20).

⁷⁴ This is not to deny that having auditory experiences as of non-sound events and their participants might require that one have some kind of background knowledge that one would not have were hearing one’s only sense- as is true of the subject in Strawson’s sound world (see Strawson 1959).

we hear. Many studies have shown that when asked to, we are able to judge with some accuracy, and on the basis of hearing alone, such things as the shape and size of dropped objects, and whether or not we'll be able to get between a wall and a sounding object (see Carello *et al.* 2005 for a review). But the shape of heard sources, for example, is not something that is apparent to us in the phenomenology of auditory experience. That is why experiments that tell us that we can judge the shape of a sound-source with accuracy, and on the basis of hearing, are so surprising. In contrast, we are able to judge, on the basis of hearing, that something has done something, just because that is how it seems.

I have argued then that when we hear sounds, we (at least sometimes) hear non-sound events. We can attend to the properties of these non-sound events, or to the sound. And in attending to the non-sound event, we attend to something that is a participant in the event— something that is doing something. Thus, we are auditorily aware of the sources of sounds. Our auditory experiences are as of such sources in that they seem to be of things doing things. This can be thought of as auditory awareness of the production of sounds. We are not in any doubt, when we hear a sound and are aware of something doing something, such as walking, which sounds it is that are the sounds of the walking— the sound in virtue of which we hear walking. There is no question of my having to work out which sounds it was that alerted me to your walking into the room. I hear the sounds of your walking, rather, *as* the sounds of your walking into the room. But to say that the sounds I hear are the sounds *of* your walking is not to say that they are, or seem to be a property you have.

We have already said that sounds are events, and not properties of objects. One reason for this is that objects do not *have* but *produce* sounds. The sounds I hear seem to be the sounds of your walking in that you seem to produce them when you walk. Or rather, something seems to produce them by doing something.

Hearing the sources of sounds in the way that I have suggested that we do is dependent on hearing sounds in the way in which I suggested, in 1.1, that hearing sources is dependent on hearing sounds. Obviously enough, we never hear things doing things that produce sounds, without hearing those sounds. On the event view of sounds we are adopting here, we can say that we hear a trio of things —sound, non-sound event and source— as located, when we hear a sound as located. There is much more to be said about what things we hear than I have been able to say here. But what I have said is enough to constrain the argument of the following section, in which I give an account of the way in which conditions that enable our hearing this trio of things, are manifest in the conscious character of hearing.

2. What enabling and defeating conditions are there for hearing the things we hear?

Before discussing enabling conditions that there might be for hearing, and our awareness of these enabling conditions, it was important to consider what things we hear, in order to have some idea about what auditory enabling conditions might be conditions for hearing. In this section, I argue that we are aware in auditory experience of two enabling/defeating conditions. The first of these is not a spatial

enabling condition— though we will see later, in section 3, that we can exploit it in a spatial way, by getting into the right place to hear.

2.1 Masking

In order to hear a sound, it must be loud enough to be heard, and specifically, it must be loud enough to be heard over other sounds currently present in one's environment. In vision, the objects that one sees can prevent other objects from being seen by occluding them. Occlusion is *spatial* blocking. The reason why I cannot see the cup behind my computer is because the computer is preventing me from seeing it by being located between the cup and myself. Occlusion is then a defeating condition for seeing an object. In hearing, the way in which the sounds one hears can prevent other sounds from being heard is by blocking them in a non-spatial way. The way in which one sound prevents another from being heard is by masking it, by being louder than the masked sound, and by occurring at the same time as it occurs. Masking is a defeating condition for hearing a sound. As discussed in Chapter 3, there are no defeating conditions for feeling bodily sensations, analogous to those there are for perception in the five familiar modalities. Bodily sensations do not occlude one another spatially, as seen objects do, and they do not mask one another, as sounds do. An intense pain may distract my attention from other sensations in my body, but it does not prevent them from being felt, as a loud sound prevents a quieter one from being heard. As Scruton puts it, 'a severe pain distracts me from lesser pains; but it does not 'hide them from view'' (1999: 13).

Masking is a defeating condition for hearing sounds, since sounds are the bearers of loudness and softness. When a loud crash masks the music from the radio, it is the loudness of the sound the crash makes that drowns the quieter sound of the music from the radio. However, since we sometimes hear non-sound events and the objects that are involved in them when we hear sounds, as I argued in the previous section, we can also be prevented from hearing these events and objects by being prevented from hearing the sound made by the event in which the object is involved. When the loud crash masks the sound of footsteps, it also prevents me from hearing walking, and from hearing the person who is walking. So by being a defeating condition for hearing sounds, masking is also a defeating condition for hearing the other things that we hear.

The masking of one sound by another is something that we are aware of in auditory experience. We are aware of loud sounds drowning out other sounds. Masking is part of the phenomenology of auditory experience *as such*. What do I mean by this? I mean that there is a difference for us between, say, a loud sound apparently masking a quieter sound, and a quieter sound itself changing so as to be more difficult to hear, or no longer audible at all. Imagine, for example, the sound of a television on which the volume is being gradually turned up and up. As the sound grows louder, it becomes more difficult to hear the sound of the people walking about in the flat next door, until eventually, I can't hear the sound of the people walking at all. It does not seem to me, when I have such an experience, as if the sound of the people walking about has changed at all. Their sound does not seem, in

this example, to have grown gradually quieter, for example. Rather, it seems as if the sound made by my neighbours has been made gradually more and more difficult to hear, as the sound of the television has got louder. It seems precisely as if the neighbours' sounds have been masked by those of the television.

The experience of masking does not require that the masking sound be one that grows gradually more loud. Imagine that a prolonged sound, or sequence of sounds, is briefly and repeatedly masked, either partially, so that it is difficult to hear, or totally, so that it can't be heard at all. The impression that we have in such cases, even that of total masking, is not that the masked sound changes or stops when the masking sound begins. Rather, it seems to us as if the masked sound continues, and is briefly masked.⁷⁵

Awareness of masking and unmasking, as such, makes manifest to us an enabling and defeating condition for hearing. Awareness of masking and unmasking does not involve there being any auditory spatial field, as we have seen in chapter 2 that there is a visual spatial field— I will discuss whether there is any reason to think there is an auditory spatial field, below. But as we saw to be true of enabling conditions being manifest in touch, it is something about the dynamic, temporal character of auditory experience that makes manifest to us this enabling condition. Masking and unmasking occur when one event (a sound) happens during a time that another event is occurring. Thus whilst we may be aware of masking and unmasking at instants,

⁷⁵ Albert Bregman discusses such an example (1994, 27-29), which is in turn alluded to by Mohan Matthen (forthcoming).

we will only be able to allow that this is so if we allow that the conscious character of experience at a time is determined by its conscious character over longer periods of time. A full account of the way in which the enabling condition currently under discussion is manifest would require an in-depth consideration of the temporal character of auditory experience, and in particular, its temporal structural features. But such consideration would take us well beyond the scope of this thesis.⁷⁶

When I say that we are aware of masking and unmasking, I do not mean to claim that we can always tell the difference between a loud sound masking a quiet one, and, say, a quiet sound getting even quieter and gradually stopping as a louder one starts and increases in loudness. We quite obviously cannot always tell the difference. My auditory experience would be exactly the same if, in response to my gradually turning the television up, my neighbours stopped walking around and thus stopped making the sound of walking. And in Bregman's discussion of our experience of the repeated masking of a tune, there is in fact no masking occurring. Rather, portions of a melody are 'snipped out' (in Matthen's terms) and filled with bursts of broadband noise. My auditory system can of course be fooled. The point is just supposed to be that there is an experience *as of* masking, whether or not masking actually is occurring.

Strawson takes our awareness of sounds as carrying on when we don't hear them to be 'based on vision'. It seems to us, he thinks, that the sound of a violinist playing in the street carries on whilst the marching band passes more noisily by, only because

⁷⁶ See, for example, Phillips forthcoming.

during this time we can still see ‘the visible but inaudible scrapings’ of the violinist (1959: 71). It seems very likely to be true of Strawson’s example that our awareness of the continuing but masked sound will be based on our seeing that its circumstances of production have not stopped. And I need not deny that a subject in a purely auditory world would not have experiences of masking. It might well be that there are some background beliefs, or concepts, or capacities or subpersonal representations or mechanisms involved in the experience of masking that can only be acquired on the basis of vision, or some other modality. Nevertheless, I think that this does not provide us with grounds to deny that in general, we are aware of this enabling condition on the basis of hearing alone. Our awareness of masking does not (or more cautiously) does not always rely on concurrent visual awareness of the circumstances of production of the sound masked (it’s not a bimodal effect, like ventriloquism). In the examples discussed above, of the sound of the television masking the sounds that the neighbours make when they walk, there is no concurrent visual experience, or in fact experience in any other modality, of the neighbours or their walking whilst their sound is masked. And in Bregman’s example, visual experience of the melody continuing beneath the bursts of masking sound is not even a possibility.

Neither do I think that we have any reason to think that the experience of masking is one that requires one to have a belief that a sound is still occurring, but masked. I don’t think we only hear *that* sounds are masked, or unmasked. Masking is part of the phenomenology of auditory experience, independently of our beliefs about it. As

I argued in the case of seeing empty space (Chapter 2), the usual reasons for saying that an experience should be understood as one of hearing *that* are absent from the case of auditory awareness of masking. When I hear the sound of the neighbours as masked, it need not be the case that I, for example, expected the sound to go on and in the light of my disappointed expectation and my awareness of the sound from the TV formed a belief that the sound of the neighbours had been masked.

I have argued then that we are aware in auditory experience of masking, and that our being aware of it as such makes manifest to us a defeating and enabling condition for hearing sounds. Because we only hear non-sound events and the objects that participate in them when hearing sounds, this defeating condition is also a condition for hearing these things, though perhaps in some sense ‘indirectly’. In the next subsection, I turn my attention to a defeating and enabling condition that is a condition for hearing the full trio of things that we hear.

2.2 Proximity

For a sound to be heard, and thus for the source of the sound and the event in which the source is engaged perhaps also to be heard, it is not sufficient that the sound be loud enough, in relation to other sounds in the environment. The heard things must also be or occur near enough to a perceiver, if she is to hear any of them. Proximity is thus an enabling condition for auditory experience. But for auditory experience of which things? On the account given in the first section of this chapter, sounds are events in which the source of the sound is a participant. The sound is located roughly

where the source is, and, of course, the event in which the source is involved is also located in roughly the same place. So whereas loudness or softness is a property of only one of the trio of things we hear, location is an audible property of all three, or in any case, can be a property of all three. And we must be near enough to all three things if we are to hear them, and far enough away if hearing any of them is to be prevented.⁷⁷

Proximity then is an auditory enabling condition— we must be in the right place in order to hear the things we hear, in that we must be near enough to them. We have seen that visual and tactile perception also has enabling conditions of this kind— we must also be in the right place in order to have visual or tactile experiences of the things we see. The enabling condition discussed in the previous sub-section is not obviously of this kind— but we shall see in the final section of this chapter that we can and do exploit our grasp of this condition by getting in or out of the right place to perceive things. Bodily awareness, unlike vision, hearing and touch, lacks enabling conditions of this kind. There is no question of getting in the right place in order to feel my sensations, or to be aware of the locations of my body-parts, as discussed in Chapter 3. I will argue in this section that proximity is a spatial enabling condition for auditory experience that is manifest in auditory experience.

⁷⁷ Of course, if there are circumstances in which I hear only a sound as located without hearing anything else—which I don't want to rule out— then in such a case what I will have to be near enough to, is just the sound itself. In such a case, what proximity will enable is just experience of a sound.

We are aware of being near enough to be heard as an enabling condition and being too far away as a defeating condition in that we are aware of the things we hear as coming in and out of earshot, as they move towards and away from us. Consider my auditory experience as a car passes by on the road below. For ease of exposition, let's discuss just my awareness of the source, that is, the car.⁷⁸ It seems to me, as I hear the car, as if it gets nearer to me from the left, then further away, to the right, and then that it passes out of earshot, further to my right. As we saw to be the case with masking, passing in and out of earshot is something I am aware of *as such*. I mean by this that when the car comes into earshot, this is how it seems, auditorily, to me. And when I hear the car getting gradually further away, until it becomes too far away to be heard, and I can't hear it at all, this again is how it seems, auditorily, to me. There is a difference for me, between the phenomenology of a sound getting louder and then quieter, or a sound starting and stopping, and something audible (sound, source or whatever) coming into and passing out of earshot. It doesn't seem to me as if the car has started on my left and stopped on my right, or as if its sound has got louder and then softer.

Awareness of something audible coming in and out of earshot, as such, makes manifest to us an enabling and defeating condition for auditory perception of the things we hear. When something comes near enough to be heard, having moved towards me, it seems as if I hear it because it is near enough to be heard. And when something seems to move out of earshot, it seems as if I no longer hear it because it

⁷⁸ One reason it's easier to talk about hearing sources here is that as we've seen above, events do not move. Rather, successive phases of the event occur at different and subsequent locations.

has gone too far away to be heard. It seems as if my hearing the car, and then not hearing it, is explained by its proximity to me.

Again, the point is not that I can always distinguish coming in and out of earshot from a sound starting and stopping, or growing louder and then more quiet. I can't. The point is just that there is a difference for me between a sound apparently starting and stopping, or growing louder and then more quiet, and something coming near enough to be heard, and then going too far away to be heard. And as I said in the previous subsection, with respect to our awareness of masking, I don't think that there is any reason to think that awareness of things coming in and out of earshot is something that (a) requires concurrent visual experience or (b) the belief, or other cognitive attitude that that which one is hearing has come into or gone out of earshot.

Now. I have suggested that in auditory experience there is manifest a spatial enabling condition, and that this condition is made manifest by our awareness of things coming in and out of earshot. And like masking and unmasking, coming in and out of earshot is something our awareness of which needs to be explained in the context of a more-or-less prolonged period of time. Thus this enabling condition too is made manifest by temporal features of perceptual experience. In vision, the spatial enabling condition to which we gave most consideration was things falling within one's sensory limitations, and thus in the visual field (recall that vision's having a field is a matter of our being aware of our visual sensory limitations). And there

being a manifest spatial enabling condition for hearing does not by itself imply that there is an auditory spatial field, parallel to the visual field. And whether or not there is an auditory field doesn't really matter very much to the account I give here: what matters is there being a manifest spatial enabling condition for hearing. Still, the idea that in auditory experience something can seem to be 'near enough to be heard' suggests awareness of an auditory sensory limitation. And thus, it is worth considering whether the notion of a spatial field is applicable to hearing as well as to vision.⁷⁹

That, for example, your speaking has to take place 'near enough' for me to hear it, entails that it cannot occur too far away— that there are limits to where it can take place and be heard. And it seems that these limits could only be sensory ones: it is not that there is some fixed region of space —say, a room, or a sports ground— in which things have to be if they are to be near enough to me to be heard. Rather, it seems right to say that things can't be or occur too far away from me and be heard because *I* am limited, sensorily. I can only hear things that are within a region of space fixed by my sensory limitations.

If there is an auditory field, then it will differ from the visual field in a number of ways. The most obvious is its 'shape'. The visual field, we noted in Chapter 2, is cone-shaped. In contrast, we can hear things 'all around'. There is no equivalent in hearing to the 'sides' of the cone formed by our visual sensory limitations. If there is an auditory field, it will, presumably, be a sphere, with the perceiver at the centre.

⁷⁹ For a more in-depth discussion of these matters see Phillips (forthcoming).

Another way in which an auditory field would differ from the visual field is in the nature of its boundaries. The boundaries of the sphere will not be like those of the sides of the cone made by the visual field. At the sides of this cone, visual experience very straightforwardly *stops*. There is a determinate limit beyond which if anything goes, no matter how large or bright, it will not be seen. Imagine, sat in a car at traffic lights, that a pedestrian crosses the road in front of your car, from left to right. As they cross, there will be a certain point at which, keeping your eyes and head still, you can no longer seem them. They then pass beyond one of the boundaries fixed by your visual field. And any visible object at all that passes in front of you in this way will pass out of the region of space delimited by the visual field, at precisely the same point. It's because we can hear things all around, that what spatially enables our hearing them is just their being near enough. They needn't fall in front of me, if I am to hear them, as they must, if I am to see them. I can turn 180 degrees, or lie on my back, and still hear you speaking, so long as I am near enough to you.

Interestingly, the 'straight ahead' limit of the visual field is not like this. Straight ahead, there is no determinate boundary beyond which *any* visible object will no longer be seen. Watching someone walk away from me, there is a point beyond which I will no longer see her. But I can nevertheless see other things that lie beyond that point. How far away things can be, and be seen, interacts with how large they are, and with their illumination conditions. I can see very distant stars because they are huge, bright, and contrast with their surroundings— this I touched upon in

Chapter 2. It would be analogous to this in all directions, in an auditory field. The boundaries of such a field, on all sides, would be like the straight-ahead limit of the visual field, in that how far away something can be, and be heard, in any direction, interacts with how loud the sound it makes is, and with the loudness of other surrounding sounds. There are no boundaries manifest in auditory experience beyond which nothing whatever, no matter how loud, can be heard, like the sides of the cone of the visual field are boundaries beyond which nothing whatever, no matter how large and bright, can be seen.

Within an auditory field, things would seem to be located differently to the way in which things seem to be located in the visual field. When we see material objects, we see them as having a certain shape or form, and as coloured. Quite obviously, we don't hear anything as coloured. And neither do we hear anything as having a certain shape and form. This is, on the one hand, just an empirical fact about the capabilities of hearing: it is no more able to represent shape than colour. On the other hand, it also reflects the fact that whatever else one hears to be located, one hears it only when one hears an event of some kind as located— a sound. And the way in which events are located is very different to the way in which material objects are located. Events don't have shape, or form. In fact, as Hacker points out, events, unlike material objects, do not really fill or occupy space at all:

The rising of an arm needs space, but does not occupy space, only the arm that rises does that. A car fills space, but the event of its rolling into the garage does not; rather it occurs *at* a place. (1982: 10; my italics)

The sounds, and non-sound events of which we are auditorily aware, like arm-raising and car-rolling, do not occupy space. Neither the sound of footsteps, nor a glass breaking, ‘fill up’ space, though of course the material objects involved in such events do. It’s because they are events, that we can hear a number of sounds, and non-sound events, in the same location. Not occupying space, as a material object does, an event does not exclude other events from occurring where it occurs. Thus, I can hear various sounds, and non-sound events all at the same location, as I listen to the radio, for example. Because the sources of sounds are heard only when their sounds are heard, auditory experience also locates material objects (the sources of sounds) in a different way than does vision. These too, we only hear ‘at’ rather than ‘in’ locations. When I see a dog in front of me, six feet away, it seems to be dog-shaped and sized. When I hear it as located, auditory phenomenology tells me nothing about the size and shape of the source. When I hear a dog in front of me, six feet away, its location is the only spatial property of which I am aware. And it seems to me only to be ‘at’ the location at which I hear it.

Furthermore, auditory experience often locates its objects less determinately than does vision. It is less determinate in the sense that often, when we hear something as being located somewhere, there are more ways that the world could be consistent with the experience being veridical, than is usually the case in visual experience (see

Nudds forthcoming: 21). Whilst it sometimes seems to me that the dog that I hear, barking, is six feet away and directly in front of me, at other times it seems only as if it is ‘somewhere over on the right’, or even ‘somewhere around here’⁸⁰. In this latter experience of the dog as only very indeterminately located, there are very many places that the dog could be, consistent with my experience of its location being veridical.

These differences between the spatial phenomenology of auditory and visual experience do not rule out there being an auditory field. However, one may think, with Matthew Nudds, that auditory spatial experience differs from visual spatial experience in that we are not aware, in hearing, of empty space. And this, we might think, would be an obstacle to there being an auditory field. He suggests:

Unlike our visual experience, our auditory experience of space is exhausted by our awareness of spatial relations between sound sources and us, and between sound sources and other sound sources (forthcoming: 25).

Hearing is, on Nudds’ view, like touch, in that when I hear things or feel things as located,

...the space that separates the experienced locations is not itself an object of the experience. In neither case are we aware of the region of space between

⁸⁰ Vision is not always that determinate as to the location of the things we see. For example, there seems very often not to be a very specific answer to the question ‘how far away does the moon seem to be?’

the places we experience something to be in the way that we are visually aware of the empty space that is the hole in the polo mint (forthcoming: 19).

We are not aware of the region of space in hearing in that, Nudds claims, we don't hear such locations to be either occupied or empty.

Given what's been said about hearing the locations of sounds and non-sound events, I would of course want to say that we are also aware of spatial relations between sounds and also the other things we hear; non-sound events and the sources of sounds. But in addition, I want to reject Nudds' claim that there is no auditory experience of empty space.⁸¹ We do hear empty space between locations at which we hear things. Experience of a silent location is not equivalent, phenomenally, to an absence of experience at a location.⁸² Where hearing and vision differ, in this respect, is in what it seems that empty regions are empty *of*, and in the way they seem to be empty. The absence of which I am aware in seeing empty space, recall, is not an absence of everything (a void) but an absence of *visible* objects. The absence of which I am aware in hearing silent locations is an absence of *audible* things at those locations. And, given what we said earlier about the differences between seeing and hearing locations, we should say also that I don't hear the space as being 'unoccupied', so much as hearing regions *at* which there seems to be nothing audible. When I hear locations as silent, auditory experience *is* neutral as to whether any objects are at those locations. When I turn my radio off, auditory experience is neutral as to whether there is anything at all at its location. What experience of silent

⁸¹ So do Dainton (2000: 75) and O'Callaghan (forthcoming: 24).

⁸² Note that it's with the experience of silent locations that I'm concerned here, not with the experience of silence more generally.

regions is *not* neutral about, is whether anything is making a sound at that location. At silent locations, I am aware of an absence of sounds that are loud enough to hear, of non-sound events which produce sound, and of material objects only in so far as they are involved in such sound-producing activities. So I would want to say that hearing differs from vision not in that we don't hear empty space, but in that what we hear empty space as empty of differs from what we see empty space as empty of. This, far from being inconsistent with the idea of an auditory spatial field, emphasizes what, if there is an auditory field, it would involve: awareness of specifically *auditory* limitations. And these limitations, if we are aware of them, would delimit a region of space within which audible things would be perceptible, and located in the distinctive way in which the objects of audition are located.

As suggested above, this diversion through the notion of an auditory field, is, strictly speaking unnecessary for our purposes here. The important point is that there are enabling conditions manifest in the conscious character of auditory perceptual experience, as there are in visual and tactile experience. It looks to me plausible that our awareness of proximity as an auditory enabling condition is awareness of an auditory spatial sensory limitation. If this is so, then in hearing as in vision, structural features are implicated in making manifest the enabling condition. (In touch this was true too, but the structural features were features of bodily awareness). But in any case, whilst the spatial phenomenology of vision and hearing is different in the above-noted ways, both involve awareness of spatial enabling conditions. In one case, that of vision, this is a matter of things seeming to fall

within the space delimited by the visual field. In the other, that of hearing, whether or not there is an auditory field, there is awareness of things seeming to be near enough to be heard.

I have argued in this section that we are aware of two auditory enabling conditions—masking, and proximity. In the next and final section of the chapter I argue that we exploit these conditions in listening.

3. How are these enabling and defeating conditions exploited in listening?

I have argued that we are aware of two enabling conditions in auditory experience: masking, and proximity. The first is primarily a defeating condition for hearing sounds, but since we hear sources and activities by hearing the sounds they make, it is also, indirectly, a condition for hearing these sources and activities. Proximity is a condition for hearing whatever we hear to be located— any of the trio of heard things. We can listen to any of the trio of things that we hear. And these enabling conditions can be and are exploited in our listening to sounds, sources, and their activities.

I'm going to consider first the way in which the obviously spatial enabling condition for hearing is exploited in listening. In vision, we exploit the spatial enabling condition by keeping objects within the visual field so as to maintain visual perceptual contact with them, as discussed in Chapter 3. I said there and it should be re-emphasized here that this was not supposed to be an explanation of the selectivity of visual attention. Keeping an object in the visual field does not suffice to pick it

out, selectively. It does not suffice because it will usually be the case that very many other objects will also be in the visual field, other than the one to which one is attending. Just by keeping the object at which I'm looking in the visual field, I do not pick it out from all these other objects. Selectivity requires an altogether different explanation (though in vision, this explanation will probably be spatial). It is nevertheless necessary, in order for me to keep the object singled out, that I maintain perceptual contact with it—keep seeing it— by ensuring that it remains in the field. I exploit my grasp of the visual spatial enabling condition by being sensitive to the object's apparent location in tracking it: if it seems to be going behind me, I'll turn around, for example.

Similarly, exploiting the auditory spatial enabling condition identified in this chapter is not intended as an explanation of the selectivity of auditory attention. Which is just as well. Selectively attending to one thing rather than others, in hearing, does not, or does not usually, involve picking it out from these others spatially— the explanation for the selectivity of auditory attention is not likely to be spatial. Recall the example from Nudds, discussed above, of selectively attending to sounds from a radio. All the sounds one hears seem to come from the same location. Still, one is able to selectively attend to one sound amongst them, to the sound of one voice, or instrument, or whatever. And this is not just a matter of selective attention to sounds. In listening to the activities of sound-sources outside my window, the locations of many of them seem to be no more determinate than 'over there, outside my window'. But I can nevertheless listen selectively to now a car going past, now a

bird singing, and now a dog barking, though I am not able to distinguish the spatial locations of these things from one another. So neither exploiting the auditory, nor the visual spatial enabling conditions is supposed to be an explanation of selectivity. And whatever exploiting the auditory spatial enabling condition *does* involve, it will differ from exploiting the visual condition. Because in hearing we perceive things in all directions, we do not, generally, have to move ourselves so as to keep hearing the things to which we're listening, whereas we do, as we have seen, have to keep things in front of us, and thus in the visual field, if we are to see them.

The straightforwardly spatial condition for hearing something, recall, is it being near enough to be heard. And the most straightforward way in which I think one does exploit this condition is just by staying near enough to hear the things to which one listens, or alternatively, by moving further away from the things that one no longer wishes to hear. Of course, to just stay where I am is to do very little. So if staying where I am is something that I do in maintaining auditory contact with the things to which I listen, then when this is what I do in listening, I do very little. It is not, however, to do nothing at all. It is to exhibit sensitivity to the role of proximity in keeping hearing things. Compare this to bodily awareness. In bodily awareness, for which there are no enabling and defeating conditions that I can exploit, I need do literally nothing in order to maintain perceptual contact with my sensations or body-parts, though there is no doubt something that I do in order to selectively attend to one sensation, or body-part, rather than others (see Chapter 3). And sometimes in hearing I do more than just stay where I am in order to hear things. When those things move around, I may sometimes move with them, in order to stay near enough

to them to hear them— consider moving from room to room with someone with whom you're having a conversation whilst they perform some other task. One follows them (at least partially) in order to keep hearing what they're saying. Again, this is exhibiting sensitivity to the role of proximity in maintaining auditory contact with things, or in other words, exploiting the auditory spatial enabling condition.

Masking and unmasking is not a spatial enabling condition. And as we have said, a full account of the way in which this condition is manifest to us would involve considering the temporal structural features of audition. Nevertheless, this condition is one one's grasp of which one can exploit, especially in tandem with the spatial enabling condition, by getting into or out of the 'right place' to hear something. Imagine listening to someone talk whilst a baby cries noisily, nearby. One might exploit one's grasp of both spatial and non spatial enabling conditions by moving away from the location of the masking sound (that of the baby crying) and closer to that of the speaker to which one is trying to listen. Or in similar circumstances in which one is, for some reason, unable to move about, one would equally be exploiting one's grasp of the enabling conditions by giving up trying to listen to the speaker, so long as the baby keeps on crying. Thus though masking and unmasking is not an overtly spatial enabling condition one is able to exploit it in a spatial way— by getting into, or out of what is the right place to hear something, given the occurrence of other noises in the environment.

The examples considered so far are examples of listening in which I maintain auditory contact with (keep hearing) something I can already hear. But we also exploit both kinds of spatial enabling condition in cases in which we can't yet hear any sounds: in 'listening out for' things at locations, or from sources. We can understand 'listening out for' as involving maintaining perceptual contact with a location or source with the aim of hearing something at that location, or from that source, should something arrive or happen there. For example, I can listen out for sounds or activities, or sources as they are involved in activities in the space behind me, in which I currently hear nothing. Or, when I am looking at a silent source, I can listen out for sounds or noisy activities from it. For example, whilst looking at a silent, sleeping baby, I can listen out for it crying. I need to be looking at the silent, potential source of a sound to count as listening out for sounds and activities from *it*, because, as we have said, purely auditory experience of silent locations is neutral as to the presence or absence of merely potential, silent sound-sources at such locations.⁸³ How do I exploit the enabling and defeating conditions in listening out for things? Well, in a multitude of ways. I might, for example, try to get closer to a silent location or source at which I'm listening out for something, particularly if there are potential masking sounds about. Or again, I might exhibit my sensitivity to the conditions by giving up listening to sounds from a silent location once potential masking sounds start up, or once I see the sound source move to a location at which any sounds it makes will be out of earshot.

⁸³ Though I might have purely auditory awareness of a silent source during brief intervals of a period of time during which I listen to it making a sound. For example, I might be auditorily aware of my phone for 10 seconds, though it beeps during that time only every other half-second.

Finally, it's perhaps as significant as any other way in which I might exploit auditory enabling conditions, that I exhibit my awareness, in listening, of the *difference* between the conditions that there are for hearing, and for seeing. I realise I don't have to keep something in front of me and free from spatial occluders in order to hear it, as I would have to do in order to see it. And I realise that having something in front of me won't be enough for me to hear it if I'm in a noisy environment, for example. My sensitivity to these things will affect what I do in listening, or indeed, in giving up on listening.

In this final section then, I have considered ways in which we exploit the two enabling conditions that I have argued we are aware of in auditory experience, in listening. We exploit these conditions in maintaining perceptual contact with things that we hear, and in listening out for things at silent locations and from silent sources. Whilst, in many cases, what we do in exploiting these conditions is very little (merely staying near enough to what we hear— staying where we are) to do very little is to do a great deal more than we do in maintaining perceptual contact with our sensations and body-parts in bodily awareness. In bodily awareness, there are no such enabling conditions to exploit, and therefore nothing at all to be done. Thus, in hearing as in vision and touch, enabling conditions are manifest in the conscious character of experience, and exploited in active perceptual attention.

Chapter 6: Taste and Smell

In the preceding chapters I have discussed vision, hearing and touch. I have argued that these perceptual modalities differ from bodily awareness in that certain enabling conditions which are exploited by perceivers in active perceptual attention are manifest in the conscious character of seeing, hearing and touching, and not in bodily awareness. Bodily awareness, I have suggested, has no such enabling conditions. I come now to the most neglected of the senses: taste and smell. These ‘chemical’ senses have received very little attention in the philosophy of perception, less even than hearing and touch. And it is not clear how theories of perception developed with vision in mind can be extended to them.⁸⁴ This will not, however, be my concern here.

Some features of experiences of tasting and smelling have led some philosophers to suggest, in the small literature there is devoted to them, that these experiences are not *phenomenally exteroceptive*. By this I mean that, on the view of such philosophers, gustatory and olfactory experiences do not seem to be experiences of anything beyond the boundaries of one’s body. At most, they may accept that gustatory experiences are perceptions of one’s body as being some way, or having some quality, if they accept the perceptual model of bodily sensation described in earlier chapters.

⁸⁴ Batty (2007, unpublished thesis) addresses the question of whether a representationalist account of smell can be given. Tye (2000) suggests, in passing, that such an account can be give of both taste and smell.

In this chapter I argue against this view of taste and smell. I argue that gustatory and olfactory experiences are phenomenally exteroceptive, and that enabling conditions are manifest in both tasting and smelling, and exploited in the olfactory and gustatory equivalents of looking. In this, taste and smell are like vision, hearing and touch, and unlike purely ‘interoceptive’ bodily sensation (i.e., sensation that directs attention only onto one’s body). Whilst the components of the view against which I will argue are to be found in the philosophical literature, they are not there to be found as components of a fully worked-out view of either taste or smell. Nevertheless, my imagined opponent’s view is one that I hope to show, whilst wrong, has enough intuitive appeal to be worth arguing against. In the first part of the chapter I discuss taste, and in the second, smell. In both parts, I will start by spelling out my opponent’s view, and then go on to argue against it.

Part I: Taste

In this part of the chapter I will be concerned with gustatory experience. In section 1, I characterize my opponent’s view. We shall see that on AD Smith’s account, whilst gustatory experiences are not phenomenally exteroceptive, we ‘take’ taste sensations as signalling the presence of flavours of things in our mouths because we also *feel* these things there. In Chapter 4, we saw that some experience being a bodily sensation is not in itself an obstacle to it being also an experience of something beyond one’s bodily boundaries. When one has a tactile experience, one has a bodily sensation in which one seems to perceive a mind-independent quality of body of which one could have no (apparent) awareness without also seeming to feel

something beyond one's bodily boundaries. In section 2 I argue that we should think of the bodily sensations that it is plausible to think are involved in gustatory experience in the same way. And thus, we can understand the way in which enabling conditions are manifest in taste in the same way as I argued in Chapter 4 that we should understand the way in which they are manifest in touch. Once we have formulated the account of taste in section 2, we can see that being committed to certain claims about how the senses are individuated might lead one to accept my opponent's view.

1. Gustatory sensations

On my opponent's view, taste experiences are not *phenomenally exteroceptive*. By this I mean that, on their view, when one has a taste experience, one does not seem to be aware of anything beyond one's bodily boundaries. So, on their view, taste experiences are akin to pains, or itches or sensations of warmth. If my opponent accepts a perceptual account of bodily sensation they will think of pains, itches and taste experiences as perceptions of one's body. Representative of my opponent's view is the following remark, from Kant's *Anthropology*:

Taste, in the proper sense of the term, is...the property of an organ (the tongue, palate and throat) to be specifically affected by certain dissolved matter in food or drink. (2006: 136)

Whilst there is hardly enough written on taste to merit thinking of this view, or any other, as orthodoxy, Carolyn Korsmeyer, echoing Kant, writes:

Tradition holds that taste directs attention ‘inward’ to the state of one’s own body. When one tastes a flavour...that flavour is positioned phenomenologically in one’s mouth, nose and throat; the sensation is perceived to be an alteration of the body. (1999: 96)

Whilst I want to reject this view of gustatory experience, it cannot be denied that it has some initial appeal. One aspect of gustatory experience that makes this view appealing is its spatial content. It is certainly true that taste ‘directs our attention inward’ in the sense that whatever one tastes, the qualities one experiences are ‘in’ the mouth, phenomenologically, in some way or another. Of course, the question yet to be answered is *how* it is that flavours seem to be in the mouth. Whilst, on our opponent’s view, flavours seem to be in the mouth in that the sensation seems to be an alteration of one’s body, on another interpretation of ‘in’ the mouth, the flavours of things are only experienced as in the mouth in as much as the qualities of a pebble one grasps with one’s hand are experienced as in the hand. However, the qualities of which one is aware in gustatory experience seeming to be—in some respect—in the mouth is not the only aspect of the spatial content of such experience that might give my opponent’s view some intuitive appeal.

The spatial content of gustatory experience is impoverished in comparison to that of experience in vision, hearing, and touch. The spatial content of gustatory experience is limited to location: we are not gustatorily aware of distance for example, or of shape. The qualities of which we are aware in taste do seem to have an ‘extent’, in that we do not experience flavours only at pin-points, but their extent does not always seem to match that of the object or liquid one feels in one’s mouth. If I place a mint on my tongue, I feel the mint right there on my tongue, but the flavour seems to fill my mouth. Furthermore, the mintiness I experience does not seem to have any clearly delineated boundaries, aside from the bodily boundaries of my mouth itself, in that the flavour of the mint doesn’t seem to extend out beyond my cheeks. This might encourage the thought that, like a sensation of pain, a gustatory experience is an experience of a part of one’s body. After all, the boundaries of a pain in my foot are just those of my foot.

Kant’s own motivation for thinking of taste as, as he puts it, ‘the property of an organ’ was that gustatory experiences are much more closely involved with pleasure and displeasure than are, say, visual experiences. On Kant’s view, vision, hearing and touch, are ‘more objective than subjective’. Taste, and also smell, are ‘more subjective than objective’. The first three are ‘more objective’ in that

...they contribute more to the cognition of the external object than they stir up the consciousness of the external organ (2006: 46).

Taste and smell, on the other hand, are ‘more subjective’, ‘stirring up’ consciousness of the ‘external organ’, in that

...the idea obtained from them is more a representation of enjoyment than of cognition of the external object. (*ibid.*)

Whilst pleasure or displeasure can be associated with perception in any modality, Kant was surely right that it is particularly prominent in the case of taste (and smell— see part II of this chapter). We rarely have a gustatory experience without taking some degree of pleasure or displeasure in it. And much of our interest in gustatory experience is in the having of pleasure or the avoidance of displeasure, rather than in exploring our environment— we rarely, at least as adults, use our sense of taste for the latter purpose. This is significant to thinking of taste as directing attention ‘inward’ since, as Kant puts it, pleasure and displeasure ‘are determinations of the subject, and so cannot be ascribed to external objects’ (2006: 136).

Though, on Kant’s view, taste is more subjective than objective, he does not claim that it is not objective at all. And whilst we may, when considering the spatial and ‘hedonic’ qualities of taste experience, find my opponent’s view appealing, we do normally talk and think about ourselves as finding out, when we have taste experiences, about the qualities of extra-bodily things. When I eat an apple, or drink coffee, and so have gustatory experiences of the flavours characteristic of these

things, I take myself to be finding out about qualities that not only persist unsensed, but which are qualities of things that are beyond the surfaces of my mouth, namely, a bite of apple, or a mouthful of coffee. How then is this to be accounted for, on my opponent's view? Our opponent can allow that we take our gustatory experiences as experiences of these external qualities. On AD Smith's view, we only do so because we have contemporaneous tactile experience of things in our mouths. When you put, for example, a mint into your mouth, Smith writes,

You take yourself to be tasting the mint only because you *feel* the mint with your tongue (2002: 139; Smith's italics).

For Smith, the aspect of one's tactile experience that allows you to take your concurrent gustatory sensation as being of the flavour of that which you feel in your mouth, is your apparent awareness of pressure (Smith forthcoming: 14–15). You take yourself to be tasting the mint because you feel the pressure the mint exerts on the surfaces of your mouth. But taste 'as such', on Smith's view, is a mere bodily sensation (*ibid.*). The mintiness one experiences is really only in one's mouth as a headache is in one's head. On the perceptual view of bodily sensation accepted in this thesis, the mintiness, we might say, qualifies one's mouth, and not the mint. (I will consider just how gustatory qualities such as mintiness are supposed to be experienced in purely interoceptive bodily sensations later).

The central role given by Smith to pressure sensations does not look to me to be an obligatory aspect of his account. As we emphasized in Chapter 4, one can have what we would normally think of as tactile experiences that do not involve the having of pressure sensations. For example, we feel the warmth of the air around us, and it's at least not obvious that the —as we say— 'tactile' experience one has when one is in contact with liquid involves any awareness of pressure. Consistent with Smith's claim that tactile experience is responsible for our taking our gustatory experiences as being of the flavours of things we feel in our mouths, we might have gustatory experiences of flavours that we attribute to things that are external to the surfaces of our mouths, though those things exert no pressure on these surfaces. One might attribute a flavour to the air in one's mouth, or to the saliva one feels there.

Having introduced my opponent's view, and suggested that it has some initial appeal, in the next section, I argue against it. I argue that the bodily sensation involved in tasting, like that involved in touching, is a sensation that one could not have without thereby seeming to perceive something beyond one's bodily boundaries. Like touch, taste is enabled by contact. And this enabling condition is manifest in tasting in the same way as we have already argued, in Chapter 4, that it is manifest in the conscious character of touching.

2. What kind of a sensation is a gustatory sensation?

Now we might perhaps agree with our opponent that in gustatory experience one is aware of one's body being apparently some way. Let's suppose, for the sake of

argument, that we do agree to this. However, we saw in Chapter 4 that it does not follow from it being true that an experience is a bodily sensation that one does not, in having that sensation, seem also to be aware of something beyond one's bodily boundaries, and thus have an experience that is phenomenally exteroceptive. There we saw that tactile perceptual experiences, which are phenomenally exteroceptive, just are bodily sensations of contact. So though we may agree that to have a gustatory experience is to have a bodily sensation, we do not, yet, in so agreeing, accept that gustatory experiences are not also phenomenally exteroceptive. In this section I argue that we should also understand gustatory bodily sensation as sensation in which one seems to be aware of something beyond the surfaces of one's mouth and tongue.

Assuming as we are doing that when one has a gustatory experience, one has a bodily sensation, the following question arises: is this sensation intransitive, or transitive? Recall, from chapter 4, that a sensation is transitive if, in having such a sensation, one seems to be aware of one's body being some way that it might be without one's sensing it. A sensation is *intransitive*, on the other hand, if it does not seem to be, at least on the face of it, a sensation of a quality that might persist unsensed. If one takes gustatory bodily sensation to be transitive, one can then ask: is the way in which one's body seems, in having this sensation, a way in which it could not seem to be without one thereby seeming to be aware of something beyond one's bodily boundaries? In order to answer both these questions (and my answers

will be ‘transitive’ and ‘yes’) it is helpful to consider gustatory experiences alongside what we usually think of as tactile experiences of surface temperature.

When you feel warmth, there are a number of things the warmth of which you might seem to feel. For example, when you have a fever, or sunburn, you feel your body, or parts of it, to be warm. In this sort of case, one has a certain transitive sensation, in that one seems to be aware of one’s body being some way that, on the face of it, it could be independently of one’s sensing it. But in having *this* sensation, you are not thereby aware of anything beyond your bodily boundaries. This sensation is phenomenally interoceptive. Other experiences of warmth, on the other hand, are experiences as of the warmth of things beyond those boundaries. For example, you might seem to feel the warmth of the air around you, or of objects against your skin. Because warmth is something that can seem to be a property of one’s body, or of some external object, one might be tempted to think of what happens when one seems to feel the warmth of external objects, as follows: one has a bodily sensation of warmth in one’s skin, in tandem with a tactile experience—involving pressure—of something in contact with one’s skin at the very location at which it feels warm. Because the bodily sensation of warmth and the tactile experience involving pressure occur in tandem, one takes the quality which one feels in one’s skin, to be the quality of the object that is in contact with one there. Let’s call this a ‘projective’ model of perceiving surface temperature, since according to it, when a bodily sensation of warmth occurs in tandem with a tactile perception, one could be said to ‘project’ the warmth one feels in one’s body onto that which one feels beyond it.

This in fact, or something very like it, is Smith's account of perceiving surface temperature, and clearly analogous to his account of taste:

[I]ndependently of association with tactile perception, sensations of taste and heat and cold would be simply located in our bodies. When, however, they occur in tandem with feeling an object, temperatures and tastes are attributed to the object (Smith forthcoming: 6)

Now this projective model may be tempting in the case of the perception of surface temperature, because, as we have seen, warmth is the sort of thing that we can make good sense of feeling to be a property of body, or a property of things beyond the body. But if we try to apply this model to taste, we run straight away into the following difficulty. It is not clear what quality of body it is that we are supposed on this model to project onto the things we feel in our mouths. In the case of perceiving surface temperature, there is no such obstacle. The bodily sensation is a transitive sensation of warmth: we feel our bodies in having such a sensation as being, straightforwardly, warm. This warmth is then the very same quality that we take objects as having, when we feel their surface temperature. The quality you take things such as apples and coffee as having is *flavour*. But it is clearly not right to think that when you take a bite of apple, or a sip of coffee, your mouth itself seems to be flavoured, as apples and coffee are flavoured. As Smith writes, when you eat your mint, 'it is not that your mouth tastes minty, in the sense in which we say that a

mint does' (2002: 139). Faced with this obstacle one might conclude, as Smith does, that —since it is not right to think of you as experiencing your mouth as tasting minty— there is *no* mind-independent way your mouth seems to be when you eat a mint. In other words, one might conclude that the bodily sensation you have when you put the mint in your mouth is an *intransitive* one, like a sensation of itchiness, or pain. To quote Smith again:

there is...simply a taste *in* your mouth. This is a pure gustatory event. Indeed, it is a mere gustatory sensation, having no 'object distinct from itself' (*ibid.*)

Thus, on my opponent's view, when I take qualities of which I am aware in bodily sensation as being qualities of external things I am 'projecting' onto them some mind-dependent quality, analogous to pain or itchiness.

And here lies a problem for my opponent. Very often, we feel pain or itchiness at locations at which we also feel things in contact with us. For example, when I touch an electrically charged object with my fingertips, I have a sensation of pain in my fingertips in tandem with a tactile experience —involving pressure— of something in contact with my skin at the very location at which it hurts. On my opponent's view it looks entirely mysterious that we do not take painfulness and itchiness to be qualities of things beyond our bodily boundaries, when it is the case that sensations of pain or itchiness occur in tandem with tactile perceptions. This Smith recognizes,

setting out to answer the question of why pains aren't taken to be qualities of external objects in his forthcoming 'Tastes, temperatures and pains'.⁸⁵ A more general problem is that there is something very odd about the idea of an experience of flavour as an intransitive sensation. For one, we usually think of flavours as the sorts of things objects have independently of their being tasted, and we said in section 1 that our opponent does not wish to deny that tasting allows us to find out about these mind-independent properties.⁸⁶ Our opponent will have to say that we find out about these mind-independent properties by having bodily sensations in which they are somehow presented as mind-dependent.

I want to suggest that these peculiar consequences of our opponent's view suggest that the projective model is altogether wrong, for the case of perceiving surface temperature as much as for the case of tasting flavours. I will discuss first how we should understand tactile perception of surface temperature, and then apply this to taste.

Even though the projective model seems more plausible for perceiving surface temperature than it does for perceiving flavour, I want to argue that it is wrong, even in the former, thermal, case. My claim is that we should not think of perceiving surface temperature as involving the projection onto an external object of a quality

⁸⁵ Grice (1962) briefly addresses the same question. Smith (forthcoming) finds Grice's suggested answers unsatisfactory, as indeed they are. His own answer is that we do not 'externalize' pains because, due to their very painfulness, they do not 'meld' into sensations of pressure, as sensations of taste and warmth do.

⁸⁶ When I say that we think of flavours as mind-independent qualities, I do not mean to deny that they are secondary qualities.

that would otherwise, without the offices of tactile perception, seem to be a quality of one's body. It should be emphasized that this is not to deny that when I hold my warm coffee cup in my hand, I feel both my hand as warm, and the cup as warm, nor that the warmth I feel in my hand seems to be the same quality (namely, warmth) as I feel in the cup. Neither is it to deny that I feel the cup's warmth in virtue of feeling my hand to be some way. What is denied, rather, is that the way one's body feels when one feels surface temperature is the very same way as it feels when one just feels one's hand to be warm. When I feel my hand to be warm the sensation I have is just that of my hand being warm. When I feel the surface temperature of some object, I have a different bodily sensation. Though my account is presented in opposition to his, Smith's description of the bodily sensation one has when feeling the warmth of the cup as a sensation of 'warm pressure' is apt (forthcoming: 17). We might pack this out as it seeming as if one's body is resisting the pressure of something warm. In having a sensation of warm pressure, as opposed to merely one of one's hand as warm, one has a bodily sensation that one could not have without it seeming to one that something warm was pressing against one. And to feel something warm pressing against one is to have a tactile, phenomenally exteroceptive perception of surface temperature.

Now let's apply this to taste. We saw above that one might come to the conclusion that gustatory experiences are intransitive bodily sensations, as the result of looking for the quality of body that gets projected onto things one feels in one's mouth, as, on the projective model, one projects the warmth one feels in one's body onto things

one feels against one's skin. But in looking for this quality one cannot find any objective way one's mouth might seem to be that corresponds to a bodily sensation of flavour. Thus, we saw, one might conclude that gustatory bodily sensations are intransitive, like sensations of pain, or itchiness. Now, if one rejects the projective model in general, then one is never tempted to look for a quality experienced in a gustatory sensation, that gets projected onto extra-bodily objects. Rather, one can say that, as we have argued is the case in perceiving surface temperature, when one has a gustatory sensation one's mouth seems to be some way that it could not be without it thereby seeming to one that one was tasting the flavour of something beyond the surfaces of one's mouth and tongue. On this account, when one eats something solid, or relatively so, the bodily sensation one has is that of something flavoured pressing against the surfaces of one's mouth. When one experiences the flavour of something that does not exert any pressure, such as the air or saliva in one's mouth, one has a bodily sensation of something flavoured in contact with the surfaces of one's mouth and tongue. There is no mystery as to why pains and itches aren't likewise 'externalized'. A sensation of pain, unlike a gustatory experience, just isn't a sensation that one can't have without having a phenomenally exteroceptive experience.⁸⁷ And we are not forced to countenance sensations in which flavour, experienced exactly as we attribute it to things such as apples and coffee, is experienced as a mind-dependent quality. Which is just as well, since it is hard to make sense of.

⁸⁷ My opponent might perhaps say that there still remains to be answered the question of why this is the case. But I'm not sure what would count as an answer to this question.

Taste, like touch, is enabled by flavoured things coming into contact with one, specifically, with the surfaces of one's mouth and tongue. The bodily sensation that is involved in tasting, like that which is involved in touching, is a sensation of contact. In the case of taste, it's a sensation of contact with a flavoured thing. This being the case, we can explain an enabling condition for taste being manifest in the conscious character of gustatory experience in the same way as we can an enabling condition for touch being manifest in the conscious character of touching. And we can likewise explain the exploitation of the enabling condition in actively tasting. As in feeling, we exploit our grasp of the enabling condition in order to maintain perceptual contact with the objects of taste, by maintaining literal contact with them, though of course, in the case of taste, that contact must be specifically with the surfaces of one's mouth. We also exploit our grasp of the enabling condition in order to disable gustatory experiences, when, for example, we spit out unpleasant tasting food. When left with, as we say, a 'funny taste' in the mouth, it can seem to one as if something oddly or unpleasantly flavoured is coating the surfaces of one's mouth. Then we exploit our grasp of the enabling condition by trying to remove this coating, again, by spitting, or washing our mouths out.

And to restate what we said about this in Chapter 4, implicated in contact seeming to be an enabling condition for touch are two aspects of the conscious character of touching. These are, firstly, a structural feature of bodily awareness, in virtue of which it is possible for us to have bodily sensations in which we seem to be affected from without, and secondly, the dynamic, temporal character of experiences

involving sensations of contact. An enabling condition for taste is thus manifest to us due to tasting involving these same two aspects of the phenomenology of sensations of contact. I can, in taste as in touch have bodily sensations in which I seem to be affected from without because my bodily awareness is structured by a sense of my body as bounded in a world that extends beyond the location of any possible present sensation. And, contact being made with my mouth and tongue being something that happens over a period of time (though perhaps brief), it might be missed if one were to be overly focused on the conscious character of perceptual experience at snapshot-like instants, rather than over longer periods of time.

In section 1 we saw that my opponent's view has some intuitive appeal. In this section I have tried to argue that though we may accept that gustatory experiences involve bodily sensations, they are bodily sensations that one could not have without seeming to taste the flavour of some object external to one's body. In the next section I argue that my opponent's view might also be motivated by certain assumptions about the way in which the senses are distinguished from one another.

3. Taste, and touch, and distinguishing the senses

I have said above that when one has an experience of tasting, one has a bodily sensation that one could not have without seeming to experience the flavour of something beyond one's bodily boundaries. Thus gustatory perception is analogous, in this way, to tactile perception. On certain views about how the senses are to be

distinguished, on the account given here, tasting will just be a form of touching.⁸⁸

For example, a proponent of the view that the senses are individuated by the features one perceives by means of them might argue that gustatory experiences, on the account offered here, are tactile, in virtue of their involving awareness of contact. Or, someone who accepts the sense-organ criterion might want to think of gustatory experiences as tactile in virtue of their involving the stimulation of tactile receptors in the mouth and tongue.

In response to this latter suggestion, one might give the following Gibsonian response. In taste, what we think of as gustatory, tactile (and also olfactory) mechanisms work together in taste as a single perceptual system.⁸⁹ And in fact, some taste-scientists do seem to see things in this way. Researchers looking at the brain structures underlying taste often see the fact that the normal stimuli for taste are also tactually operative as posing a ‘methodological challenge’ (O’Doherty 2004: Section II). In brain imaging, researchers employ ‘baseline comparison conditions’, using tasteless substances to control for, as they put it ‘tactile’ interference (*ibid.*). On the other hand, some, particularly those whose flavour-related research interests are in

⁸⁸ Cf. Aristotle’s labelling taste ‘the variety of touch that serves nutrition’ (Korsmeyer 1999: 20)

⁸⁹ This looks like the right kind of thing to say about the contribution of smell to taste. Research confirms the familiar fact that flavours such as those of coffee, wine, cherries, lemon, pineapple and even water become difficult to recognize with a cold (Vroon 1997: 25). This is due to the involvement of ‘olfactory’ receptors and mechanisms in taste. When eating and drinking, air from one’s mouth reaches the olfactory receptors at the roof of the nasal cavity via the nasopharynx. When one has a cold, the mucous layer of the nasal epithelium, which contains the olfactorily-sensitive cells, swells. Thus, odiferous substances are less able to reach these cells. Yet when everything works normally, we say that we *taste* the flavour of coffee, wine, cherries, and so on. We shouldn’t take from this that we really only taste, say, bitterness and sweetness, the ‘coffee’ quality being, strictly speaking, olfactory. Rather, part of our physiology that contributes to the sense of smell, and thus forms part of the olfactory system, in normal gustatory experience, also forms part of the gustatory system.

food science and technology, are happy to take a more Gibsonian approach, on which taste itself is ‘an oral chemoreceptive, and also mechanoreceptive and thermoreceptive sensory system’ (Halpern: 2001). The sense of taste, on this view, involves whatever receptors contribute to our overall experience of eating and drinking. On this approach, the contribution of ‘tactile’ receptors and mechanisms to normal taste experience is such that we see the tactile component as part of the gustatory system itself, rather than something in addition to taste proper. This is consistent with the view presented above in section 2. However, though this Gibsonian suggestion looks to me plausible, I have no prior commitment to it, or to any claim about how the senses are distinguished from one another. My point, in this section, is just to suggest that my opponent’s view might be motivated by being committed to some claims about how the senses are distinguished from one another.

In Chapter 1, I gave a very brief account of the philosophical debate over how the senses are distinguished from one another. We can see even from this brief account that the following two assumptions are commonly, though not universally, made by those who have considered the individuation question (that is, the question of how the senses are distinguished from one another):

- (a) The individuation question can be answered without appeal to convention.

- (b) An answer to the individuation question requires the formulation of criteria by means of which we can distinguish the *five commonly-identified senses* from one another.

Now, given (a) and (b) one of the things that one will want one's account of how the senses are distinguished to do, is to say in virtue of what, other than convention, all those experiences that we usually think of as tactile, are tactile. For example, one will want to be able to say in virtue of what, other than convention, feeling surface temperature, feeling ambient temperature, and feeling the rim of the glass when I press against it with my fingertip, are all tactile perceptions. On the standardly proposed criteria for individuating the senses, as introduced in Chapter 1, one might for example say that these perceptions are all tactile in virtue of, for example:

- (i) Their all involving awareness of contact (if one adopts a version of the features criterion), or
- (ii) Their all involving parts of the body that serve as sense-organs in virtue of that which is perceived coming into contact with those body-parts (if one adopts a version of the organ criterion)

Now if you are committed to (a), (b) and either (i) or (ii) then you will want to reject an account like that which we have given in section 2. This is because if you accept the account given of taste there, then by (i) or (ii) taste experiences are also tactile. They are bodily sensations that involve awareness of contact, and they involve parts

of the body, namely, the mouth and tongue, that serve as sense-organs in virtue of that which is perceived coming into contact with those body-parts.

In order to avoid accepting that that perception of flavour is a form of touch (which would be inconsistent with (b)), you might then be led to pick out a distinct gustatory experience from the overall experience you have in your mouth when, say, eating an apple or drinking coffee. This gustatory element, in order not to count as tactile by (i), or (ii), will be a gustatory sensation that one could have without thereby seeming to be aware of anything beyond one's bodily boundaries. This, of course, is my opponent's view, against which I have been trying to argue in this part of the chapter. As emphasized in Chapter 1, it is not my intention in this thesis to provide or support any way of answering the individuation question. Thus I am committed to none of the assumptions above. With no commitment to (b), I am free to accept that taste is a form of touch, as Aristotle suggested. Or, with no commitment to (a), it will not matter to me if there is no non-conventional way to distinguish taste from touch. I am free to say that though we have as good a reason to distinguish a thermal sense as we do a gustatory one, we do not, because our counting the senses as we do is at least partly a matter of convention.

Part II: Smell

In part I of this chapter, I argued against the view that gustatory experiences are not phenomenally exteroceptive. In this section, I do the same for olfactory experiences. One reason for considering taste and smell separately is that smells, unlike flavours,

we usually think of as, loosely speaking, objects in their own right. In section 4 I suggest that it is right to say that we only take our olfactory experiences to signal the presence of the *sources* of their smells on the basis of experience in another modality. However, on my opponent's view, olfactory experiences are bodily sensations that we only take to signal the presence of smells themselves, considered as extra-bodily objects or phenomena. In section 5 I consider why someone might think this of smell, and in section 6, argue that they would be wrong to do so. On the account of smell I give in section 6, enabling conditions for olfaction are manifest in olfactory perception, and exploited in actively smelling.

4. Smelling the sources of smells

Whilst I want to say that olfactory experiences are phenomenally exteroceptive, it also seems right to say that we only take our olfactory experiences as being of the *sources* of smells, on the basis of experience in another modality. This will be my claim in this section.

In Chapter 5 we saw that sounds count as objects of auditory perception in that they are the bearers of auditorily sensible properties, unlike colours and shapes, which are the visually sensible properties of the objects of visual perception. Smells count as the objects of olfactory perception in an analogous way as do sounds. We do sometimes think of smells as properties of their sources; I might, for example, think that the apple *has* a sweet smell, just as it has a spherical shape or a red colour. However, we also think of smells as objects, or better, phenomena distinct from their

sources, that are themselves perceptible, and can survive the removal or destruction of their sources. For example, it is not unusual to smell the smell of someone's perfume after they have left the room, and cooking smells linger in the kitchen long after the meal has been eaten and the dishes washed. Smells thus understood are, loosely speaking, the 'effluvia' (Reid 1997: 25) of material objects or stuff. We can think of smells as being made up of parts of their sources, dispersed in the air, or as supervening on such things.⁹⁰

In the previous chapter I argued that in addition to sounds, we also, at least sometimes, hear their sources. We also commonly think of ourselves as smelling not just smells, but also the sources of those smells— things such as roses, bits of cheese and bars of soap. But it seems right to me to say, as Smith does, that

...attributions of smell to physical objects require...the perception of such an object by a different sense (2002: 143).

On this view, I only take the sweet, rosy smell as being that of a particular rose, in virtue of, say, concurrently seeing, or holding it. Reid seems to have held a similar view:

⁹⁰ I assume a realist account of smells. See Batty (unpublished thesis) and also Scruton (1999: 4). He takes sounds and odours (and rainbows) to be 'secondary objects'.

By the original constitution of our nature we are both led to believe, that there is a permanent cause of the sensation, and prompted to seek after it; and experience determines us to place it in the rose (1997: 75).

On Reid's view, we come to take, because of the original constitution of our nature, our olfactory experiences as signalling to us the presence of the *sources* of smells because one finds that these experiences occur in the presence of certain external things, the presence of which, presumably, we learn about via experience in some other modality.⁹¹

One reason, alluded to by Smith, that it seems right to say that olfactory perception is not by itself as of the sources of smells is that there seems to be no phenomenal difference between an olfactory experience of the smell of a rose, and an olfactory experience that is, as we say, of the rose itself. In particular, there is no difference in the spatial content of the experience when I attribute the smell to its source, and when I smell only the smell. I discuss the spatial content of olfactory experience more in the following sections. In addition, the reasons we saw in chapter 5 that there are for thinking that we hear the sources of sounds, are absent from the case of our supposed olfactory experience of the sources of smells. I argued there that by hearing sounds, we hear non-sound events in which the sources of sounds participate. When we hear these events, we hear the sources of sounds. There are no

⁹¹ In addition to the involvement of experience in another modality, some part might also be played in my attributing smells to their sources by my knowing that the smell of which I am aware is that which is characteristically the smell of roses. Otherwise, I might well attribute the smell to the hand that holds the rose, or to something else in the room.

grounds for thinking that the considerations I raised in the hearing chapter as supporting the claim that auditory experience is as of the sources of sounds apply here. For example, it doesn't seem that we are led by the facts about olfactory grouping (if there is such a thing) to think that we smell objects. And we are not aware in olfactory experience of events that seem to be the activities of material objects.

Whilst I accept that it may, for these reasons, be right to say that olfactory experiences themselves are not 'as of' the sources of smells, in what follows I want to deny a stronger claim one might make about smelling. According to this stronger claim, olfactory experiences are not as of smells, considered as extra-bodily physical phenomena, either. Rather, they are sensations that at most, are directed onto one's body. I will introduce this view in the next section.

5. Olfactory sensations

On our opponent's view, olfactory experiences are not phenomenally exteroceptive. One proponent of this view is Reid, who writes of a man's first experience of the smell of a rose that he:

...cannot give it a place, any more than he can give a place to melancholy or joy: nor can he conceive it to have any existence, but when it is smelled. So that it appears to be a simple and original affectation or feeling of the mind, altogether inexplicable and unaccountable.(1997: 37)

Similarly, William Lycan writes:

...considered only phenomenologically, a smell seems a modification of our own consciousness rather than a property of a perceptual object that would exist unperceived (2000: 277).⁹²

According then to Reid and Lycan, olfactory experiences do not even direct attention to one's body.

However, our opponent may also hold that when one has an experience of smelling, one seems to be aware of a quality that is located, phenomenally, within one's bodily boundaries. Specifically, on this view, olfactory qualities seem to be located in one's nose. Our opponent's view of smell may be motivated by much the same factors as those introduced in section 1 as motivating our opponent's view of taste. For example, Kant thought of both smell and taste as 'more subjective and objective' due to the involvement of pleasure and displeasure in both. But particularly relevant to olfactory experience is its spatial content. Much of what follows will be concerned with how to describe the spatial character of olfactory experience. But suffice it to say, at this point in the argument, that its spatial character might be thought even more impoverished than that of taste. Smells never seem, when we smell them, to be at any distance from us. And neither do they seem to be in any

⁹² Whilst Lycan denies that olfactory experiences seem to present their subjects with any mind-independent object or quality, he argues that they do, nevertheless *represent* odours, considered as extra-bodily, mind-independent phenomena.

direction, or to move. Neither do we seem to move in relation to them. As AD Smith points out, in tandem with awareness of our own bodily movements we may ‘judge’ that a smell is ‘objectively unchanged and that a less intense perception is due to our having distanced ourselves from it; but we do not *smell* this’ (2002: 174; my italics). And when we smell more than one smell at a time, we do not pick them out from one another spatially. Thus the spatial content of smell is rather deprived, especially in comparison to that of seeing, hearing and touching. It is this deprived spatial content that leads Smith to deny that olfactory experiences are phenomenally exteroceptive. He writes:

Whereas you see and hear things *at* a distance, and feel spatially located objects *with* your hands, you typically experience smells *in* (or just behind) your nose. (2002: 139)

Now there are two ways in which we can understand the claim that smells are experienced as ‘in’ the nose. On the first, olfactory experience *is* phenomenally exteroceptive. On this reading of the claim that smells are in the nose, they are there in the way in which a pebble seems to be in the hand that holds it, or, a swallowed fishbone seems to be in the throat, or given the account of taste given in part I, something tasted seems to be in the mouth. A pebble held in the hand is, and is experienced as in some respect being, enclosed by part of one’s body— one’s closed hand. But it doesn’t seem to one, in the experience one has when grasping the pebble, just as if one’s hand is some way. One seems to feel the pebble, which seems

to be something extra-bodily— something beyond one’s bodily boundaries. We might take Smith as claiming that smells seem to be *in* one’s nose as pebbles seem to be in the hand— as enclosed by some part of one’s body, but nevertheless distinct from it, beyond its boundaries.

On the second reading of the claim that smells are experienced as in the nose, smells seem to be in the nose as an itch or a pain might seem to be there. It’s on this reading that we can take Smith as denying that olfactory experiences are phenomenally exteroceptive. Now, which of these readings does Smith have in mind? There is some evidence that he is thinking of the second reading, on which smells are in the nose as itches and pains are. Having claimed that smells are experienced in the nose, he writes that ‘experientially, they are not spatially located’ (2002: 44). In the context of the discussion in which this remark appears, Smith can be taken as meaning that smells don’t have ‘phenomenal, three-dimensional locatedness of the objects of awareness in relation to a sense-organ’ (2002: 134) that, for example, visual experiences do have. It seems reasonable to conclude from this that Smith means that the locatedness of smells in the nose is akin to the locatedness of itches or pains there, that is, that olfactory experiences are not phenomenally exteroceptive. In section 6 I argue that smells are not in the nose as itches are there. In section 7 I consider whether they seem to be in the nose in any other way.

6. The nose as a sense-organ

In this section I argue that smells don’t seem to be in the nose in the way in which in bodily sensations, qualities are located in parts of one’s body, because instead, in

olfactory experience the nose seems to be the place ‘from’ which we smell things. On the account I give of the way in which the nose seems to be the place from which things are smelt, enabling conditions for olfactory perception are manifest in the conscious character of smelling.

To say that the nose is the place from which things are smelt is to say that it is a sense-organ, minimally construed (see Chapter 3). It is nothing new, of course, to claim that the nose is a sense-organ. What I want to emphasize is that it is a sense-organ in the following way: it is a place from we seem to smell things in that smelling, like seeing, involves, as Mike Martin puts it, ‘perspectival elements’. Bodily awareness does not involve such elements. Vision’s perspectival elements involve seeing things at distances and directions from the place roughly where one’s eyes are. When one sees a duck, it seems to be a certain distance from one, in a certain direction. The distance and direction seem to be a distance and direction *from* somewhere. It’s not however that the place from which one seems to see the duck is, in Martin’s words, ‘an explicit element in how things are presented as being’ (409). One sees the duck, and not oneself. Rather, the place from which one apparently sees is ‘marked in one’s...experience through it being the point to which the objects perceived are presented’ (*ibid.* 410). Seeing a duck involves awareness of a point to which the duck is presented, namely, the point roughly where one’s eyes are. Bodily experience, in contrast, does not involve a point to which things are presented in this way. When one has headache, one’s experience does not include a place to which the headache is presented. Rather, one feels the ache as *in* a part of one’s body.

Now, think about an olfactory experience of, say, the smell of coffee. Is the experience like seeing the duck, or like having a headache? That is, does one's experience involve perspectival elements, such that there seems to be a place to which the smell is presented? The smell, unlike the duck, does not seem to be at any distance or in any direction from me. As we saw above, in this way, olfactory spatial content is deprived, in relation to the spatial content of experience in other modalities. So if there are perspectival elements to olfactory experience, these elements are not a matter of our smelling things at distances and directions. But this does not mean that there are no perspectival elements to olfactory experience. Olfactory experience does not just involve being aware of certain qualities, such as smokiness or floweriness. It also involves awareness of the smells that have these qualities being brought *to* the nose, when we breathe in through it, or sniff. The nose is the place from which things seem to be smelt in that we are aware of smells being brought *to* the nose in breathing and sniffing. Thus, smells do not seem to be in the nose as itches and pains do. Rather, olfactory experiences are phenomenally exteroceptive: the smells that seem to be brought to our noses by breathing and sniffing seem to be extra-bodily phenomena.

The account given here of the way in which the nose seems to be the place from which things are smelt is an account on which smell, like taste and touch, involves bodily awareness. We saw in Chapter 4, and in part I of this chapter, that touching and tasting both involve being aware of one's body as being a certain way, a way

that it could not seem to be without one's seeming to be aware of something beyond one's bodily boundaries. In touch and taste one is aware of one's body as being a certain way, in that one has a certain bodily sensation, namely one of contact. We might see olfactory experience as also involving a sensation of contact made by the smell that is breathed in, with the inner parts of one's nose. But it also involves bodily awareness of one's breathing— this will include proprioceptive awareness of happenings over a more extensive portion of one's body than one's nose.

It needs no argument that smelling is enabled by breathing and sniffing. It is a necessary condition for smelling some smell, that that smell be brought into one's nose. I have suggested, above, that we are aware of smells being brought to our nose by our breathing and sniffing. Olfactory perception being enabled by breathing and sniffing through the nose is thus manifest in the conscious character of smelling. We have seen already, in Chapter 2, that one way in which to miss the enabling conditions that are manifest in sense-perception is to ignore the conscious character of experience over periods of time more extended than the 'snapshots' with which philosophers are sometimes overly concerned. Breathing and sniffing are temporally extended goings on. Correlatively, one is *aware* of one's breathing or sniffing over a period of time. Thus if one conceives of the conscious character of experience at an instant as determined by what happens at that instant, one will miss the manifest enabling condition in olfactory experience, as we have seen that one will likewise miss the conditions that are manifest in hearing and touching.

So I have argued in this section that smells are not in the nose as itches and pains are. Rather, the nose seems to be the place from which we smell smells, by seeming to be the place to which those smells are brought, by breathing and sniffing. Furthermore, in smelling involving this awareness, an enabling condition for olfactory perception is manifest in the conscious character of smelling. This enabling condition is that of olfactory perception of smells being enabled by these smells being brought into one's nose when one breathes or sniffs. I have argued then, over the last six chapters that enabling conditions for perception are manifest in the conscious character of olfactory experience, as they are manifest in that of seeing, hearing, touching and tasting. In these four modalities, I have also argued that these enabling conditions are exploited in active attention. At the end of the next section I will argue that the same is true of smelling— that the enabling condition that is manifest in the conscious character of olfactory experience is exploited in active olfactory attention. Before that I argue that not only do smells not seem to be in the nose as itches and pains are, but that neither do they seem to be *just* in the nose as a fishbone is in the throat, or a pebble in the hand.

7. Where do smells seem to be?

In section 5 we identified two readings of the claim that smells seem to be in the nose. On the first reading, they seem to be there as itches and pains do. On this reading, olfactory experiences are not phenomenally exteroceptive. In section 6 I argued that smells don't seem to be in the nose as itches and pains do. Rather, the nose seems to be the place from which we smell smells, in that it seems to be the

place to which smells are brought by our breathing and sniffing. On the second reading of the claim that smells seem to be in the nose, olfactory experiences *are* phenomenally exteroceptive. Smells, on this view, seem to be there as a pebble might feel to be in one's hand— that is, as distinct from, but enclosed by a part of one's body. Here I want to argue that this second reading of the claim that smells seem to be in the nose is, with some qualification, correct. The qualification is this: smells seeming to be *brought into* the nose, they don't seem to be *just* there, even in the innocent way that a pebble seems to be in the hand. Smells seem to have been brought into the nose, from the extra-bodily world beyond. And thus they seem to be located in that extra-bodily world. With this made clear, we will, at the end of this section discuss some ways in which we exploit our grasp of the olfactory enabling condition in actively smelling.

Smells seem to be in the nose in something like the way that a pebble seems to be in the hand, or a fishbone in the throat. When I breathe in, and smell the smell of coffee, the smell seems to make contact with the inner parts of my nose, this contact being of the variety that does not involve pressure. But because smells seem to come from beyond the nose, and in fact, from beyond the body altogether, they do not seem to be only in the nose, as an object inserted in a nostril would seem to be. Where then, in addition to the nose, do smells seem to be? And how should we describe the phenomenology of their seeming to be both in the nose, and beyond it?

We have already touched upon the deprived spatial content of olfactory experience, in section 5. We don't smell things at distances and directions, and we don't pick out smells from one another by picking out their locations. We don't seem to move in relation to smells, and they don't seem to move in relation to us. And when I smell something, the smell doesn't seem to occupy a certain region of space. The smell of cooking I smell when I walk into the kitchen doesn't seem to have a certain volume, though I may take it to fill the kitchen, knowing that that is where I am. Rather, the spatial content of olfactory experience is neutral not only with respect to distance and direction but also with respect to size or extent. So it's not that the smell seems to be in my nose, and also beyond it, in the sense that I am aware of it as having some (even relatively) determinate extent, and of this extent encompassing both the location of my nose, and of some (even relatively) determinate region of space beyond it.

Whilst it *is* possible, under controlled conditions, for us to locate smells much more precisely than we do (see Georg von Békésy 1967), in the normal case, as Matthen puts it, 'every smell of which I'm aware is simply *here*' (Matthen 2005: 284, my italics). Beyond the nose, we are aware only of a smell of a certain intensity, 'here'. This is again comparable, in certain respects, with the (as we usually put it) 'tactile' perception of ambient temperature. When I feel the warmth of the air around me on my skin, it seems as if the air is warm not merely in some narrow layer on the surface of my skin, but, more generally, it seems to be warm 'around here', in the vicinity of my body, where this vicinity is not of any determinate extent. The

difference in the case of smell is that, whilst smells can also be described as seeming to be ‘around here’, they seem to be in the vicinity not of one’s body, but of the nose, into which one is aware of them being brought by one’s breathing and sniffing. Thus smells do seem to be in the nose, but they do not seem to be just there. They also seem to be beyond the nose, in its vicinity, where this is a region of indeterminate extent.

The restricted spatial phenomenology of smell impacts upon the way we exploit our grasp of the enabling condition that I have argued is manifest to us. That we do in fact exploit our grasp of this condition is fairly obvious. Before I conclude the chapter, I will consider some examples of the way in which our awareness of the enabling condition is exploited in actively smelling.

One sort of purpose to which we put our active olfactory attention is in tracking and escaping smells. So, for example, if I smell gas, I might try to get away from the smell. Or if I smell coffee, I might track the smell to its source. As we saw, smells don’t seem to move, and we don’t seem to move in relation to smells. Thus the olfactory element of tracking and escaping smells is partially the registering of the intensity of the smell at different locations— it also involves awareness of bodily movements. Because smells only ever seem to be ‘here’, in tracking the coffee smell to its source, I move in some direction and see if the smell intensifies. If not, I move in another direction. If so, I keep on in the originally chosen direction unless the smell begins to weaken, or disappears. Tracking smells is thus in some respects

like playing the HOT/COLD game, in which a hider guides a finder to a hidden object by shouting out ‘hotter’ as they move closer to it, and ‘colder’ as they move away from it. Whatever else it might involve, tracking the smell of the coffee in this way involves taking in the air at different locations in order to smell it.

However, on this description of tracking smells, it differs not at all from tracking ambient temperature to its source. Walking into a dark, cold, room, I might find my way to a heat-source by ‘feeling around’, moving in the direction in which I discover the heat intensifies, and backtracking when it gets cooler. But where actively smelling is different from this feeling around is in the role of sniffing. All smelling involves breathing through the nose (smell that involves the retronasal passages aside).⁹³ But we can also take control of this activity, by sniffing. Sniffing alters the speed with which odiferous substances reach the nasal epithelium, velocity in some parts of the nose reaching hurricane speeds with vigorous sniffing (Proctor 1982: 171). The nasal cavity is open to the rest of the world, through the nostrils, and to the throat, through the retronasal passage. Sniffing increases the rate of flow through the nasal cavity, and directs the flow upwards to the olfactorily receptive cells. This can increase the proportion of inhaled odiferous molecules reaching the cells ‘from about 5 to 20%’ (Proctor 1982: 280). Interestingly, some studies have found that there seems to be some kind of constancy phenomenon operative here: for though smelling brings, as it were, more of the smell to the receptors, this does not affect the perceived intensity of the smell. The smell of coffee in the room has the same

⁹³ It is also possible to smell substances that have been injected into the bloodstream, as the result of the substances reaching the blood-vessels of the nasal epithelium. See Vroon 1997.

apparent intensity, whether I sniff vigorously, or breathe normally. What it does affect is detectability. If the smell is very faint, I may be able to detect it only with vigorous sniffing. Beyond this, as one author puts it, ‘it is not fully understood to what extent odour perception is influenced by the sniffing behaviour of the observer’ (*ibid.*). What is clear is that tracking smells differs from tracking ambient heat in that the former involves actively sniffing smells into one’s nose.

I also exploit my grasp of the olfactory enabling condition in trying not to smell certain things. If I don’t want to smell some particularly unpleasant smell, I might (temporarily!) avoid taking in air so as to no longer smell the smell, or at least avoid sniffing. And, of course, it’s not just in tracking and avoiding smells that I exploit the manifest enabling condition for smell, sniffing. Actively smelling, no less than the other forms of perceptual attention considered so far, can be put to many uses. I can track a smell, avoid one, or I can perform the olfactory equivalent of ‘looking out for’ an odour where there currently is none, sampling the air in my current immediate vicinity. And in all of these activities, I exploit the manifest olfactory enabling condition, sniffing, that I have discussed in this section.

Chapter 7: Conclusion

In Chapters 2–6 I have identified a feature that is common to the five familiar senses, and lacking from bodily awareness. This feature is having enabling and disabling conditions for perception of a certain kind, that are manifest in the conscious character of sense-perception, and exploited in sense-perceptual activity. This feature, I claim, is what is distinctive about the senses. But, as we said in Chapter 1, in order for this claim to be acceptable, we must have reason to believe that it is not just incidental that we group together those faculties that have these enabling conditions, and exclude from this category bodily awareness, which just happens to lack enabling conditions of the relevant kind. In this concluding chapter, I argue that it is not just incidental that we group the five familiar senses in this way. Though it is not just incidental that we group together faculties that have this feature, as instances of single kind of thing, I do not want to argue that the possession of this feature is necessary and sufficient for some faculty to count as a sense. I will argue, in section 3, that this is not the sort of significance that one should expect an account of what is distinctive about the senses to have. Here I will be expanding upon a suggestion made in my introductory chapter. I will suggest that it is enough for us to be able to say that our grouping together perceptual faculties that have this feature serves certain interests that we humans have.

First though, I want to look at some other things that the account given in Chapters 2–6 has in its favour. At the outset of our investigation, in Chapter 1, we introduced some expectations that one might have about what makes something an instance of

sense-perception, or correlatively, a faculty a sense. And we saw that it was far from obvious how these expectations might be met. In section 1, I argue that the account given of what is distinctive about the senses meets these expectations. Furthermore, we can see that bodily awareness lacking enabling conditions of the kind I have argued that the senses have allows it to serve a number of important and distinctive functions. This I discuss in section 2.

1. Phenomenology and sense-organs, again

In chapter 1, section 2 I noted that an interesting feature of the way in which we usually distinguish between senses, and other faculties, is that we do not usually count bodily awareness amongst the senses. We do not usually think of bodily awareness as a sense, even though it is quite intuitive to think of it as a perceptual faculty. So my aim was to identify some feature that is distinctive to the five familiar senses, and in particular, that they do not share with bodily awareness. In other words, we wanted to find some feature that was distinctive of *sense-perception*. And we saw that this is something about which one might have some intuitions or expectations. And since it was far from obvious how these expectations were to be met, the question we have been engaged in answering looked worth pursuing. In this section I look at the way in which the account given here meets these expectations.

1.1 Phenomenology

Sense-perception (perception in the five familiar senses) is, as a matter of fact, informative about the world. Intuitively, we said, sense-perception differs from other

ways we have of finding out about the world in that it both allows us to acquire knowledge specifically about things in the environment as they currently are, and also in that the knowledge thus acquired is causally explained by the phenomenal character of sense-perceptual experience. This then might lead one to expect that what is distinctive about sense-perception should have something to do with its conscious character (see Chapter 1, section 3). That is, we might expect that appeal to the conscious character of sense-perceptual experience will be ineliminable from an account of what is distinctive about the senses, just as, on Grice's view, it is ineliminable from an account of how the senses are distinguished from one another. But it was, we noted, far from obvious in what the phenomenological distinctiveness of sense-perception might consist. In chapters 2–6 I have argued that enabling conditions for perception are manifest in the conscious character of seeing, touching, hearing, tasting and smelling. In bodily awareness, no enabling conditions are manifest. This is what is phenomenologically distinctive about sense-perception.

It is worth noting two obstacles to accepting the claim that enabling conditions for perception are manifest to us in the conscious character of sense-perception, the first of which has already been mentioned in several places during the preceding chapters. This first obstacle to accepting the claim is a pre-occupation with the conscious character of experience at instants, or at least, during extremely brief periods of time. If one is overly concerned with how things seem to one during such 'snapshots', then one is unlikely to notice that enabling conditions are manifest in sense-perception. After all, many of the enabling conditions we have said are

manifest to perceivers involve the way things seem to those perceivers over relatively extended periods of time. This is true, for example, of the enabling condition that I argued, in Chapter 4, is manifest in tactile perception. I argued there that it is manifest to one, in tactile perception, that tactile perception of *o* is enabled by *o*'s making contact with one's body (either directly or indirectly). It is manifest to one in that when one touches something, one has a bodily sensation of contact, for example, of being pressed against, or of being warmed from without. Sensations of contact such as these involve one being aware of something that is temporally extended. And thus the sensations in which we are aware of these things are sensations in which our awareness of contact being made itself unfolds over a period of time. Similarly, in hearing, one way in which enabling conditions for auditory perception are manifest is in it seeming to us as if audible things come in and out of earshot. Something comes into or goes out of earshot over a period of time, and I am, consequently, aware of such things only over relatively extended periods of time. If one focuses on how things seem to one only at snapshot-like instants, one is unlikely to notice the presence of enabling conditions like this.

The second obstacle to agreeing to the claim that enabling conditions are manifest in the way I have argued they are is accepting a certain view in the philosophy of perception about the nature of perceptual experience, namely, a strong transparency thesis.⁹⁴ If one holds this view, one thinks that all the features of perceptual experience are representational. Some of the features in virtue of which enabling

⁹⁴ Amongst those who accept this thesis are Tye (1995; 2000) and Dretske (1995). For discussion and critique see Martin 2002.

conditions are manifest in the conscious character of perceptual experience are, I have argued, *structural*. Structural features of experience are not representational—they are independent of the objects and properties one apparently perceives. In Chapter 2 I argued that an enabling condition for visual perception of visible objects is manifest to us in virtue of the structural feature of visual experience that constitutes vision's field-type character. And in Chapter 4 we saw that a structural feature of bodily awareness is implicated in a tactile enabling condition being manifest to us.

1.2 Sense-organs

We also said (Chapter 1, section 3.2) that it's intuitive to think that what is distinctive about the senses, has something to do with their involving sense-organs, which bodily awareness does not involve. But we also saw, (in the same place, and in Chapter 3) that it is very difficult to give conditions under which some part of the body counts as a sense-organ. This prevents us from saying that the presence of an organ is what distinguishes sense-perception from bodily awareness. Whilst it has not been my intention to provide criteria for counting some body-part as a sense-organ, the account given in Chapters 2–6 nevertheless allows us to say what is right about the intuition that what is distinctive about the senses is that they involve a sense-organ. Furthermore, it allows us to say what is right about the intuition in a way that is closely related to the expectation, just discussed, that there should be something phenomenologically distinctive about sense-perception.

First of all —and again, this is a thought that we have come across earlier in the thesis— it is natural to think of sense-organs as, as Armstrong puts it, ‘parts of the body that we habitually move at will’ in order to affect perception. As well as being manifest in the phenomenology of experience, I have argued that the enabling conditions that are distinctive of sense-perception are exploited in sense-perceptual activity, in particular, in maintaining perceptual contact with the things one perceives. In seeing, tasting and touching, at least, what is done when one exploits one’s grasp of the enabling conditions in this way is to move parts of one’s body one usually thinks of as sense-organs around in order to perceive. One moves them, or keeps them where they are, so that they are in the right place for one to perceive things, or indeed, so as not to perceive things. Which body-part one moves, and where the ‘right place for one to perceive’ is, depends on the perceptual activity in which one is engaged, that is, on whether it is a visual or tactile or gustatory activity. For example, if you are looking at something, you may move your eyes in order to keep it in front of you, within the limits of your visual field. Or, if you are tasting something, you have to keep your mouth (or just your tongue) in contact with the object. Or, if you are feeling something, you may move parts of your body serving as sense-organs (see Chapter 4) to keep them in literal contact with it. In each of these cases, exploiting your grasp of the enabling condition will involve moving parts of your body around, and specifically, the parts of your body that we usually think of as sense-organs, or in touch, that it makes sense to think of as serving as sense-organs.

It is not (or not straightforwardly) true of all the senses that exploiting one's grasp of the relevant enabling conditions will involve moving parts of your body that we think of as sense-organs around in this way. For example, one does not move one's ears when one listens, or one's nose when one smells, independently of moving one's head, or larger portions of one's body than this. We humans cannot, of course, move these body-parts independently. That's not to say that one doesn't have to be 'in the right place' in order to smell or hear things. Quite the contrary. In all modalities, there are parts of the body that have to be in the right place if one is to perceive things (Chapter 3, section 2). And in all modalities, exploiting one's grasp of enabling conditions can involve getting these body-parts into an appropriate relation with perceptible things, as we have seen. In smell and hearing, one can only get one's ears or nose into the right place by moving larger portions of one's body. So whilst our account allows us to see what's right about the idea of sense-organs as parts of the body one moves at will in order to perceive, it does not allow us to identify sense-organs as such body-parts.

There is another way in which our account is related to the expectation that what is distinctive about the senses is that they involve sense-organs. I suggested that we might construe sense-organs, very minimally, as places from which things seem to be perceived. Our everyday conception of a sense-organ may, and probably does involve more than this. But it seems right to say that the parts of the body we usually think of as sense-organs are places from which things seem to be perceived, even if they are also, and we also think of them as being more than this. It is true of touch

that whenever we touch something there is a part of the body that serves as a sense-organ, construed in this minimal way. And smell, and hearing, also involve sense-organs thus construed. Bodily awareness, of course, does not involve any part of the body from which things seem to be perceived. As we have emphasized in previous chapters, there is no part of the body from which one seems to feel, for example, a pain in one's foot, or as if one's arms are stretched out in front of one. How though does *this* relate to the account we have given of what is distinctive about the senses?

We need not think, and I have not suggested, that there being a place from which things seem to be perceived, in some modality, is *prior* to enabling conditions being manifest in the conscious character of perceiving in that modality. Perhaps, on the contrary, there seems to be a place from which things seem to be perceived in sense-perception *just in that* the enabling conditions are manifest to one. This looks like the right thing to say for smell, for example. In Chapter 6 I argued that olfactory qualities do not seem to be 'in' one's nose in the way in which pains or itches might seem to be in parts of one body. Rather, the nose is the place 'from' which smells seem to be perceived: a sense-organ, minimally construed. And, I argued, it seems to be the place 'from' which things seem to be perceived in that a certain enabling condition for olfactory perception is manifest to us. This enabling condition, recall, was that olfactory perception is enabled by smells being brought into the nose by our breathing and sniffing. And it might be right to say, with respect to the other modalities too, that there seems to be a place from which things are seen, heard, tasted or felt *in that* enabling conditions are manifest in perception. Or, in other

words, we might say that there is a sense-organ, minimally construed, in that such enabling conditions are manifest to us. This then would be another way in which it would be right to say (as it is intuitively right to say) that what is distinctive about the senses has something to do with their having sense-organs. There is of course much more that one might say here.

In this section I have suggested that the claim that what is distinctive about the senses is their having enabling and disabling conditions of a certain kind, meets some expectations that we might have had, at the outset, about why we might think of sense-perception as a single kind of thing. In Chapters 2–6 I have been careful not only to argue that the five familiar modalities have these enabling conditions, but also that bodily awareness lacks them. In the next section I point out that lacking these conditions allows it to effectively serve a number of important functions that it has for us.

2. Functions of bodily awareness

As a matter of fact, at least in normal human perceivers, bodily awareness of various kinds serves certain important functions that other perceptual faculties do not have. For example, the awareness one has of one's body has a special role for one in protecting that body from harm, and in moving it in action. And amongst the actions that bodily awareness has a role in helping us to perform are the attentive activities of looking, listening and so on, that we have argued in this thesis involve the exploitation of enabling conditions of a kind that bodily awareness does not have.

These are all, obviously, important functions. Now, I do not intend to give anything like a functional analysis of bodily awareness— I do not claim, for example, that no faculty that did not have these functions could be one of bodily awareness. Rather, what I want to point out is that bodily awareness having these important functions, it would not serve them nearly so well if it had enabling and defeating conditions of the kind that sense-perception has.

Let's consider, first of all, bodily awareness' distinctive function of protecting one's body from harm. Amongst the forms of bodily awareness that serve this function, the most obvious is pain. That pain does normally have this function is made vivid by consideration of sufferers of congenital analgesia. Patients with this condition lack all capacity for pain. As such, they are prone to allow great harm to come to their bodies and also to behave in ways that are not conducive to healing when their bodies are already damaged.⁹⁵ For example, one patient with congenital analgesia, known as 'Miss C' is said, as a child, to have 'bitten off the tip of her tongue while chewing food' and to have once suffered 'third degree burns after kneeling on a hot radiator to look out of the window' (Grahek 2007: 8). In normal subjects sensations of pain would alert you to withdraw your knees from the radiator or your tongue from your teeth before such horrible damage occurred. And when you or I do hurt ourselves, pain at the site of injury alerts us to rest or protect the damaged area,

⁹⁵ Grahek notes that we can distinguish, functionally and also physiologically, two subsystems of the pain system. The first is the avoidance system, which is sensitive to 'potentially noxious stimuli' exposure to which if prolonged, would damage body tissue. The second is the restorative or repair system which 'guards injuries against further insult' and thus allows healing (2007: 9-10).

whereas a patient like Miss C will continue to walk on a damaged foot or write with a damaged hand, to their obvious detriment.

Pain, then, has an evident benefit— it helps prevent us from damaging our bodies. Now, if pain is to serve this beneficial function, what's important is not merely that it is a mechanism of informing us that we're damaged or in danger of becoming so. This is what a second sort of pathological pain condition highlights. Sufferers of pain asymbolia have sensations that we might want to call sensations of pain (they certainly recognize them as such) but in whom these sensations are no longer felt as something unpleasant or something that they want to avoid. Pain asymbolics feel and can recognize pain sensations when they're damaged. What they lack are the normal affective and behavioural responses to these sensations. They're not bothered by their pain sensations and they don't withdraw from the things that hurt them. In experimental settings, they have been observed to smile or laugh when pained (Grahek 2007: 46) and they remain friendly to experimenters throughout testing in which they are subjected to what would in other circumstances be considered torture (47).⁹⁶ Pain doesn't serve its beneficial function in these patients either. Whilst it gives them a way of knowing of damage or threat to their bodies, their not being bothered by pain means that they nevertheless are not sufficiently motivated to avoid it. The wife of one such patient reported that he had recently suffered serious burns to his hand 'without escape or emotional reactions' (Grahek 2007: 85). Pain serves

⁹⁶ Grahek describes such subjects as feeling pain, but not being in pain -it doesn't matter to us here whether that's an apt description.

its function not just because it's a reliable indicator of damage or danger, but because it's horrible.

Problems related to these considerations faced Paul Brand's first attempt to build a prosthetic pain device for use by patients with a variety of disorders of pain perception. The intention, initially, was to produce a pain system that 'warns of danger but doesn't hurt' (Grahek 2007: 83). Sensors worn on the body would react to pressure, sending a signal to a hearing-aid that would buzz when the wearer's body was in danger of damage and emit a piercingly loud sound when actual damage occurred. Such a system, it was hoped, would preserve the 'good' aspects of pain and not the 'bad' aspects, in that its wearers would not experience the warning sounds as horrible, in the way that we experience pain. Unfortunately, the system didn't work: its users would ignore it or turn it off when the loud signal sounded. Now, part of the problem here is evidently that the sound emitted by the hearing aid wasn't horrible enough for it to serve the functions of pain— like the pain asymbolics, there were not, for the device's users, the usual affective responses associated with pain. But the failure of Brand's next attempt demonstrates that this wasn't the only problem.

In this next attempt, Brand and his colleagues created a device that could be used by patients whose lack of pain sensations was localized. Leprosy patients, for example, tend to retain a capacity for pain sensations in the warmer parts of their bodies, such as their armpits. Brand replaced the hearing-aid component of their prosthetic pain

device with an electric coil, placed in the armpit, which would deliver a painful electric shock when the sensors detected danger or damage to other parts of the body. Brand realised that this device too was doomed to failure when, he says, he observed one of his volunteer patients, Charles, attempting to loosen a rusted bolt with a wrench:

I saw him put some force behind the wrench and then stop abruptly, jerking backward. The electric coil must have jolted him... Charles studied the situation for a moment, then reached up under his armpit and disconnected a wire. He forced the bolt loose with a big wrench, put his hand in his shirt again and reconnected a wire. It was then that I knew we had failed (Brand, quoted in Grahek 2007: 88).

Why had they failed? We've seen that the asymbolics highlight the fact that if pain wasn't horrible, we'd ignore it, and then it wouldn't serve its function. But precisely because it's horrible, we'd stop it —disable it— if we could. And if we could make sure that we didn't experience it in the first place, then we would probably choose not to. For normal subjects, in the main, the things we can do in order to put an end to pain, or not get it in the first place, are to get out of situations in which things are harming us, or are likely to do so. Thus, pain, being so horrible, gets to serve this function of preventing (or at least, minimising, harm). But the asymbolics using Brand's second device had a different way in which to stop pain, or not get it in the first place; they could just turn their pain device off. As we've said, the horribleness

of pain is such that we'd stop it if we could. The device-wearing asymbolics could, and so did stop it. And thus pain could no longer serve its harm-preventing function for them.

For our purposes here, the moral I want draw from such cases is that if there were enabling and conditions for pain (or for other kinds of bodily awareness), of the kind there are for the senses it would not serve its function of protecting the body nearly so well. It's not of course that for Charles, enabling and defeating conditions are manifest in the conscious character of his pain experience, or exploited by him in attending to his body as visual enabling conditions are exploited by us in looking. The point is that were there such enabling and defeating conditions for bodily awareness, one would then be able to put an end to one's bodily experiences, including pain, by exploiting such conditions. Charles, due not to exploiting his grasp of enabling conditions that are manifest to him, but to the design of the pain-device with which he has been fitted, is likewise able to put an end to his pain. Because pain is unpleasant, this is precisely what he does. And in so doing, he endangers his body. If there were enabling and defeating conditions for bodily awareness of the kind there are for vision, touch, and so on, chances are that we would act like Charles does, thus likewise endangering our bodies. If I could—for example—do something analogous to turning my back on, or getting very far away from, my hand in order no longer to feel the pain there, I would.

As we said in Chapter 3, its not that there aren't things we can do to put an end to bodily experience, nor that there isn't an activity of attending to bodily states and goings-on.⁹⁷ But these things are importantly unlike exploiting enabling and defeating conditions in order to maintain or break perceptual contact with one's body. There is nothing analogous to turning away, or getting further away that I can do in order to no longer feel my headache, or the relative position of my hands, or the itch in my foot. And correlatively, there is nothing like this that I do in order to keep feeling these things. I don't keep my body-part or sensation within some bodily field to maintain contact with it. I don't more generally, 'stay in the right place' to feel my headache.

Pain, we have said, plays a special role in bodily protection. But other ways of being aware of our bodies also help us to keep our bodies safe. Being aware of my movements, and of where my limbs are in space helps me to keep them out of harm's way, and also helps me not to injure myself by, say, poking myself in the eye. If there were enabling and defeating conditions of the relevant kind for these kinds of bodily awareness then I could also exploit them in order to lose track of my limbs and movements, and I would be at much greater risk of injuring myself.

Bodily awareness also has a distinctive role in moving our bodies in action. It's not my intention here to say anything at all about what, in particular, this role is— to do so would be to go well beyond our concerns here. It's not obvious, for example,

⁹⁷ See Chapter 3, section 4.1 for how the ways we can put an end to bodily awareness differ from exploiting enabling conditions for perception of the kind there are for the senses.

what one should say about how much control of one's bodily movements when acting is taken care of by subpersonal systems. But it is, I think, uncontroversial to say that bodily awareness has some distinctive role here, a role that, say, vision or touch does not have. The kind of bodily awareness that is relevant here is proprioception, and kinaesthesia— our awareness of the position of our limbs in space and overall layout of our bodies, and our awareness of the movement of those body-parts. Another pathological example helps us to see that if there were enabling and defeating conditions for bodily awareness of these kinds, they would be much less fit to serve their distinctive function in controlling action.

The example is the well-known case of Ian Waterman, who due to a viral infection suffered extensive damage to his peripheral nervous system. Waterman lost much of what we think of as tactile perception from the neck down, and also awareness of the position of his limbs, posture and movements. In addition, the nerve damage stopped the functioning of, in Jonathan Cole's words, 'subconscious programmes' involved, in the normal subject, in the control of action. He retained normal awareness of temperature, pain and muscle fatigue (Cole 1991: 24–33). What it is like to be Ian Waterman is difficult to imagine.

Whilst there has been no neurological recovery, nevertheless, and against all predictions, Waterman has been able to learn to control his body, to some extent. He can stand, walk, drive and generally carry out sufficient day-to-day tasks to enable him to live independently and hold down an office job. But his repertoire is

limited— he cannot run, stairs are still difficult, and such things as playing the piano or riding a bike would now be inconceivable for him. None of the movements he can now perform have been ‘relegated to the reflex, the unthinking’ (1991: 113). His movements are also awkward. According to Jonathan Cole, no one who saw Ian moving his body around could think that nothing was wrong— his movements look unnatural, which, of course, is exactly what they are (127). This is partly because all those tiny adjustments of posture that for us, are taken care of by subpersonal systems, are for him under conscious control. This takes a great deal of concentration and effort. Here is Waterman’s description of the kind of challenge just moving around the office in which he works can pose for him:

I was walking down a slope at work, one that I don’t normally use. As I approached it and before I even stepped on it I had planned how it would be tackled. I assessed the surface and the angle of the slope, inclined my body in sympathy with it, shortened and slowed my pace and widened my stance.
(Cole 1991: 113)

Thus his movements, whilst limited and awkward, are also expensive in terms of energy and attention. Having to devote such a large amount of attention just to keeping upright and moving around takes these resources from other things. He cannot take notes at a meeting, the concentration involved in writing and listening being too much for him also to retain posture (1991: 136). He cannot, he says, ever

lose himself in his work, since he always has to keep partially focussed on the task of staying upright.

For our purposes, Waterman's intriguing story brings out the fact that were bodily awareness to have enabling and defeating conditions of the kind that the senses have, it would not be able to play its role in action, or at least, not well. It's not that Ian Waterman is someone for whom bodily awareness has such enabling conditions. But in the absence of normal bodily awareness, and the normal mechanisms of bodily control, one way in which he now keeps track of the parts of his body in acting is visually: 'For Ian and his body it is literally 'out of sight, out of mind' (Cole 1991: 128). But, vision having the enabling and disabling conditions that we have seen that it has, this presents its own set of problems. If he loses sight of his feet when walking, for example, in deep mud, he cannot carry on (1991: 120). At his wife's funeral he could not allow himself to cry, since to do so would have led to blurred vision and possible collapse (108). He has to brace himself to sneeze, otherwise the brief loss of visual awareness of the position of his body can lead to falling (129). In order to control his body, Waterman has to look at it. And he thus has to exploit his grasp of visual enabling conditions to keep in perceptual contact with parts of his body, keeping them in his visual field and free from occluders. Having to exploit visual enabling conditions in this way contributes to his being so inefficient and limited an actor. There not being enabling and disabling conditions of this kind for normal bodily awareness facilitates it performing its distinctive role in acting. Thus

it is important to the carrying out of this role that bodily awareness does not have the feature that I have argued is distinctive of the senses.

Amongst the (loosely speaking) actions with regards to which bodily awareness plays its distinctive role are those perceptual activities in which we exploit enabling and defeating conditions— looking, listening, and so on. And here there is reason to think that bodily awareness plays some additional and unique role, though there is much more to be said about this role than I will be able to say here. I have argued that we exploit enabling and defeating conditions in these attentive perceptual activities (see especially Chapter 3). Specifically, one exploits one's grasp of the conditions in order to maintain (or break off) perceptual contact with objects of perception. And this involves keeping, (or not) parts of one's body serving as sense-organs in the right place, relative to such objects, in whatever way is appropriate to the modality in question. And presumably, this must involve one's having proprioceptive and kinaesthetic awareness of the location and movements of the relevant body-parts. But what if there were enabling conditions of the kind there are for vision and the other senses, for bodily awareness? That is, what if in order to be aware of the locations or movements of one's body-parts, including those serving as sense-organs, one had to be sure to be in the right place? Presumably, one would then have to have some prior awareness of that which had to be got into the right place, in order to be aware of one's body-parts, including one's sense-organs. Then it looks like, as Armstrong writes about something rather like this imagined scenario, 'we are faced with an incipient vicious infinite regress' (1993: 213). So if, as looks

plausible, bodily awareness plays some special role in perceptual activity in the five familiar senses, then its playing that role depends on it not having the kinds of enabling and disabling conditions that these faculties have.

3. Convention and significance

We said, in the introduction to this thesis, that a desideratum of our account was that it identify a feature that is in some way significant, or relevant, to our grouping together as instances of a single kind of thing, the five familiar senses. The discussion in sections 1 and 2 of this chapter itself goes some way to meeting this requirement. This is because, or so I have argued, the account I have given of what is distinctive about the senses has met some expectations that we might have about the notion of sense-perception. And furthermore, it is not ‘just incidental’ that bodily awareness lacks this feature in that, as we saw in section 2, it would not be as useful to us as it is if it had enabling conditions of the kind that sense-perception does have.

Still, one might hope, and indeed would be right to hope that more than this can be said about the significance of the senses having and bodily awareness lacking this feature, to our grouping them as we do. One might still feel that not enough has been said to dispel the thought that this feature is one that the senses just happen to have, and nothing at all to do with our thinking of them as instances of a single kind of thing. In this last section of this chapter, and of this thesis, I argue that the feature does have the required significance.

First of all, what *kind* of significance is it that this feature has to our grouping the senses in the way that we do? We saw, in Chapter 1, that it is not my intention to claim that having enabling conditions of the requisite kind is necessary and sufficient for something to be an instance of sense-perception, or—which amounts to the same thing—for a faculty to be a sense. It seems right to say that we might easily have grouped faculties together in ways other than we do, and that we might have called bodily awareness a sense. It might be objected, at this point, that if having such enabling conditions is not a necessary and sufficient condition for being a sense, then it *is* just incidental that the senses in fact have such enabling conditions. This objection, however, would be too hastily made. This is because, from the claim that we might have grouped faculties together in ways other than we do, it does not follow that our actual grouping practices are entirely arbitrary, or capricious. Before I look at the significance that the having of enabling conditions of the relevant kind has for our grouping practices, I want to expand on the suggestion, made in Chapter 1, that the request for conditions necessary and sufficient for some faculty to be a sense would be, in the first place, misguided. In order to do so, it will be helpful to return again to Matthew Nudds' answer to the question of how the senses are distinguished from one another.

Nudds, as we saw, points out that the most commonly proposed answers to the question of how the senses are distinguished from one another try to map the distinction between the senses onto some distinction 'in nature'. A distinction is a distinction 'in nature', for these purposes, if it is one that exists independently of our

practice in making it. Nudds argues that the distinction we make between the five familiar senses cannot be mapped onto a distinction in nature. There is no ‘natural’ distinction that corresponds to that between the five senses. We saw, in Chapter 1, that on Nudds’ view, the distinction we make is a distinction between ‘ways of perceiving’, understood as sets of conditions necessary for perceiving something. There are though as many ways of perceiving as we can individuate sets of necessary conditions for perceiving something, which will be very many indeed. Our distinction between five of these sets is, Nudds’ argues, ‘conventional’.⁹⁸ Analogously, since it is easy to imagine that our practices of grouping faculties might have been different, the distinction between faculties that are senses, and other faculties, is not one for which we should expect to find a corresponding distinction ‘in nature’. This being the case, the task we have been engaged in, as was indicated in Chapter 1, is not that of uncovering or discovering a natural kind. And thus, we should not expect to find conditions necessary and sufficient for some faculty to be a sense, or for something to be an instance of sense-perception.

But that is not to say that our grouping together the faculties we do as senses is entirely capricious. And in particular, it is not to say that the having of enabling conditions of the kind discussed in Chapters 2–6 is not significant to our grouping together the faculties we do as senses. Paul Snowdon (1998) argues that the idea of

⁹⁸ On his view, making the distinction as we do is conventional not just in that we could have made it in some other way, but also in the way that driving on the left is conventional. In this way, making the distinction between the five familiar senses is something that it is in each of our interests to do, given that everyone else makes the distinction in the same way. I do not want to say that the distinction we make between senses, and faculties that are not senses is conventional in this latter way. It is ‘conventional’, if that’s even the right word here, only in that it seems right to say that we could well have distinguished between senses and other faculties in some other way than we do.

uncovering of ‘*a priori* determinable necessary truths about some ‘element’ or ‘feature’ is only one conception of what one might be up to in providing an analysis of some concept. On another, more restricted conception, one aims, rather ‘to articulate the essential components involved in the *possession* of the concept in question’ (1998: 307, my italics). And on Snowdon’s view, this articulation should relate, in some way, to the way in which the concept is acquired— it should aim to ‘recreate (or make sense of) the conceptual route whereby the concept is acquired’ (*ibid.*). We have said nothing at all about the way in which the concept of a sense, or of sense-perception is acquired. The important point, for our purposes, is a distinction that Snowdon then goes on to make. When we approach our psychological concepts in the latter way, aiming to provide an analysis of this more ‘restricted’ sort, there is a distinction that, as Snowdon puts it, at least ‘*seems evident*’ (308). This is a distinction between, on the one hand, psychological concepts that pick out phenomena to which we can attend, or which attract attention, such as pain or itchiness; and on the other hand, psychological concepts that are not concepts of phenomena of this sort. If we are interested in concepts of psychological phenomena to which we can attend, presumably, such attention will play a role in our acquiring such concepts. But if we are interested in the other sort of concept, we will need, nevertheless to tell some story about how such concepts are acquired, of how we can, as he puts it, ‘latch onto’ the phenomena in question. And on Snowdon’s view, we latch onto the relevant phenomena *as they perform certain roles*. In other words, such concepts are, in some respect, *functional* concepts. We

would, in this way ‘latch onto’ seeing, or belief, or consciousness as phenomena that, as a matter of fact, in us normal humans, have a certain *role* or *function*.

We saw, in Chapter 1, that Matthew Nudds gives an account of the distinction between the senses of this sort. The account he gives aims to spell out the role or function of, as we might put it, the concept of there being *distinct* senses. And as we saw there, on his view, its role lies in being informative about what other people are in a position to know about things on the basis of the way in which they have perceived them. Since the distinction between the senses has for us this significance (or, since it is for us a concept that plays this role) we are not capricious in distinguishing between the senses in the way that we do. We individuate ways of perceiving in a way that is constrained by the significance that the distinction between the senses has for us. We distinguish between them in such a way that it is informative to know which of these ways is the way in which someone perceived something. And we make the distinction in such a way that we can recognize in which way—that is, by what sense— someone has perceived something.

Now, it is a contingent fact about humans that we have an interest in interpreting and explaining the behaviour of other people. If Nudds is right, if we didn’t have this interest, then, presumably, we wouldn’t make the distinction between the senses in the way that we do. In this way, the distinction between the senses is, on Nudds’ account, interest relative: relative to an everyday human interest in interpreting and predicting the behaviour of others. Similarly we can say I think that our grouping

together faculties with the feature identified in this thesis, whilst ‘conventional’ (in the sense that we can conceive of it being otherwise) is not arbitrary. Given certain interests or concerns that we humans have, we can see that it would serve these interests for us to group faculties in this way. There might be, in fact, many interests that are served by our doing this. I end by discussing some of them.

One way in which it might serve our interests to group together faculties that have enabling conditions of the relevant kind takes us back to the discussion of sense-organs, in section 1 above. One thing in which we humans have an interest is in finding out about things in the world. Faculties that have enabling conditions of the kind I have argued the senses have are those that involve sense-organs— parts of the body that have to be in the right place in order for one to perceive things. Where a faculty involves the use of a sense-organ, we will often have to get up and move around the world in order to get and keep that sense-organ in an appropriate relation to the things about which we want to find out, even where these sense-organs are not independently movable. We can use bodily awareness to find out about things too, of course, but in order to do so, we won’t have to move our bodies around the place, to keep bits of it in an appropriate relation to that about which we want to find out. So, given how important to us humans finding out about things in the world is, we can see why we would take those faculties that have enabling conditions of the kind I have discussed in Chapters 2–6 to be instances of a single kind of thing, of which bodily awareness is not an instance. If we weren’t interested in finding out about things (and we might not have been), it would not be, in turn, interesting or notable

for us that sometimes, we have to move our bodies around the place in order to find out about things, and sometimes, we don't. So though we might have grouped faculties together in ways other than we do, this provides one reason to think we are not wholly capricious in our grouping practices.

Finally, we have seen that on Nudds' view, the distinction between the senses is, in a certain way relative to our concern with interpreting and predicting other people's behaviour. It might also serve this interest for us to group faculties with enabling conditions of the relevant kind together. The enabling conditions considered in this thesis are not the only sorts of necessary conditions for perception. There are also, as Nudds points out (2003: 47), external physical conditions, such as —perhaps— the presence of light for seeing, and there are also innumerable many necessary conditions for perception that are, roughly, subpersonal, having to do with the functioning of the psychological and neurological mechanisms underling perceiving. Bodily awareness has enabling conditions, no less than do the senses. But the senses, we have seen, have enabling conditions that have to do with getting in the right place to perceive. This means that not only I, but also everyone else is moving about the place getting and staying, as we have said, in the right place to perceive in the five familiar modalities, and I can observe them doing so. My observing them doing so, as Nudds emphasizes, is informative for me. By observing other people's perceptual activities, we are in a position to know what they know, and thus, how they might behave. Bodily awareness lacking enabling conditions of the kind the senses have, there are no analogous perceptual activities we can observe, to be analogously

informed about how other people are perceiving their bodies. This then might be another reason for our thinking of faculties that have the feature identified in Chapters 2–6 as instances of a single kind of thing, of which bodily awareness, not having this feature, is not an instance.

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