

Bodily Awareness and the Self

Bill Brewer

1. Introduction

What can we learn about the nature of the self from reflection on bodily experience? I shall come at this question by addressing a more specific issue: how much does the phenomenon of bodily awareness cut against a Cartesian conception of the self? In other words, what, if anything, can be extracted from the nature of a person's epistemological relation with his body, in defence of the common sense, anti-Cartesian, idea of a person as no less basically bodily than mentally endowed?

In *The Varieties of Reference* (1982), Gareth Evans claims that considerations having to do with certain basic ways we have of gaining knowledge of our own physical states and properties provide "the most powerful antidote to a Cartesian conception of the self" (220). In this chapter, I start with a discussion and evaluation of Evans' own argument, which is, I think, in the end unconvincing. Then I raise the possibility of a more direct application of similar considerations in defence of common sense anti-Cartesianism. Progress in this direction depends upon a far more psychologically informed understanding of normal and abnormal bodily awareness than is generally found in philosophical discussions of these issues. In the context of my attempt at some such understanding, I go on to assess the potential of this more direct line of argument.

2. Evans' antidote to Cartesianism

Evans' argument from bodily awareness against the Cartesian conception of the self (1982, 215-222) starts with the observation that certain self-ascriptions of physical properties made on its basis display a particular immunity to error. This is not the claim that any such self-ascriptions are absolutely incorrigible or immediately evident. His point is not they are necessarily true if sincerely made, or automatically endorsed whenever true. It is rather that a certain special sort of error is not possible, which Shoemaker (1984) christens 'error through misidentification relative to the first person pronouns',

where to say that a statement " a is ϕ " is subject to error through misidentification relative to the term ' a ' means that the following is possible: the speaker knows some particular thing to be ϕ , but makes the mistake of asserting " a is ϕ " because, and only because, he mistakenly thinks that the thing he knows to be ϕ is what ' a ' refers to. (7-8)

Thus self-ascriptions are immune to error relative to the first person pronouns, just if one cannot express knowledge, in making such self-ascriptions, that *someone* is the way one judges oneself to be, yet be mistaken in judging that it is oneself who is that way, because, and only because, one misidentifies the person one knows to be that way as oneself. For example, when I judge that I am thinking about last night's concert in the normal way, it would be a nonsense to admit that I do indeed know of some person that he is thinking about last night's concert, yet to query whether that person is really me.

Now it may well be the case of every physical self-ascription, in contrast, perhaps, to

some mental self-ascriptions, that there are ways one might come to know it true which leave the judgement open to error through misidentification in this sense. For example, I might judge my arm bent at a certain angle by seeing an arm in a mirror, of identical appearance to my own and with a watch just like mine on it, bent at just that angle. Here it is possible that I do know some arm to be bent at that angle, but that I am in error in supposing it to be my own, perhaps because it is my identical twin's, which is tangled up with mine as we roll around together. In cases like this, in which I judge myself to be physically thus-and-so on the basis of my perception, from the outside, of the object I take to be my body, the judgement "I am thus-and-so" is indeed subject to error through misidentification relative to the first person pronoun.

Nevertheless, Evans claims, there are ways we have of gaining knowledge of our own physical properties which do issue in judgements immune to this particular kind of error. In particular, this seems to be the case in connection with the cluster of internal senses which go under the general title of 'bodily awareness', which includes at least the following. Joint position sense and sense of balance, which inform us of the current configuration of our bodies and limbs; kinaesthetic sensation, which tells us about our active and passive bodily movements; and tactual perception, very generally, of body-surface contact, moving stimulation, temperature and pressure.

As Evans himself puts it,

None of the following utterances appears to make sense when the first component expresses knowledge gained in the appropriate way: "Someone's legs are crossed, but is it my legs that are crossed?"; "Someone is hot and sticky, but is it I who am hot and

sticky?"; "Someone is being pushed, but is it I who am being pushed?". There just does not appear to be a gap between the subject's having information (or appearing to have information), in the appropriate way, that the property of being *F* is instantiated, and his having information (or appearing to have information) that *he* is *F*; for him to have, or appear to have, the information that the property is instantiated just is for it to appear to him that *he* is *F*. (1982, 220-221)

Thus it seems that when they are made on the basis of these particular, indeed *normal*, ways of becoming aware of our bodies, physical self-ascriptions are immune to error through misidentification relative to the first person pronouns. (I shall drop the qualification where possible, and refer the the phenomenon simply as 'immunity to error through misidentification', in future.)

Evans' argument continues with a diagnosis of this immunity to error through misidentification as a symptom of a kind of direct demonstrative reference, which is contrasted with indirect, identification-dependent, reference. To refer to a particular object in thought, the thinker must know which object is in question in the following sense. There must be some account of what it is about her thinking in virtue of which it is how things are with that object which determines whether her thought is true or false. One way of meeting this condition is by an explicit identification of the object in question, which might in principle have misfired, so to speak, and latched onto a different object, or possibly no object at all, instead. But this cannot be the only way of meeting the 'know-which' requirement, on pain either of an infinite regress which would undermine the possibility of any genuine reference to objects in thought at all, or of an untenable reduction of all knowledge of objects to knowledge by description (Russell 1917).

The suggestion would be that every judgement " a is ϕ " must rest on some identification ' b ' of a , which constitutes the thinker's knowledge which object is in question, together with the judgement " b is ϕ ". This is how the possibility of error enters; for the judgement of identification " $a = b$ " might be mistaken. But then " b is ϕ " must presumably rest in turn on some pair of judgements " $b = c$ " and " c is ϕ ", and so on without limit, in which case all such thought is in fact impossible. The only way to halt this fatal regress is to suppose that a thinker's knowledge which object is in question is always ultimately to be spelt out in terms of some definite description 'the X ' which is uniquely satisfied by a . On this view, every judgement " a is ϕ " rests in effect on a single pair of judgements " $a =$ The X " and "The X is ϕ ". But certainly in connection with self-identification, which is our central concern here, and indeed with many other varieties of reference too, this descriptive model is unacceptable. The best way to see this in the case of the first person is to recognize that for any suggested descriptive concept X , uniquely satisfied by oneself, one might realize that the X is ϕ without realizing that *one* is ϕ oneself, in the sense in which this would give rise to the judgement "I am ϕ ", which might come as further news. For one might not know, or have forgotten, that one is the X . For example, I might be fully aware that the man in green is about to be run over without any inclination to take the avoiding action which would be immediate on coming to realize that *I* am about to be run over. Hence quite generally, the judgement "I am ϕ " cannot be captured by any descriptive thought to the effect that the X is ϕ (Castañeda 1966; Perry 1979; Evans 1982, p. 206).

So there must be another, more basic and direct way of meeting the condition on thought about an object that the thinker knows which object is in question. Evans suggests that demonstrative identification in general, and self-identification in particular, instantiate

this basic mode of singular reference. The central idea is that the 'know-which' requirement is met in these cases in part by the thinker's actually being informationally linked with the object, by the propensity to have his judgement immediately controlled by information received in certain special ways *from that object*, and also in part by his disposition to act *in relation to that object* on the basis of his judgement. What makes it the case that a particular object *o* is identified in thought, what therefore constitutes the thinker's knowledge which object is in question, is the place of the thought as a suitably sensitive response to information directly from *o* and a suitably sensitive controller of dispositions to action in relation to *o*.

Now suppose that '*a*' is a referring expression which can be used in this way. Suppose that it is used in this way in the judgement "*a* is ϕ ", and that the information that *a* is ϕ is gained in this special reference fixing way. Then it follows that the thinker could not possibly be expressing knowledge that some particular thing is ϕ , but yet be mistaken in asserting "*a* is ϕ " because, and only because, he mistakenly thinks that the thing he knows to be ϕ is what '*a*' refers to. For the question which object '*a*' refers to is settled precisely by appeal to the facts about which object the thinker is being informed is ϕ . His coming to know that something is ϕ just is his coming to know that *a* is ϕ .

Immunity to error through misidentification is therefore evidence of this direct form of demonstrative reference. And which object is picked out in thought, if any, is then determined as the source of the information giving rise to judgements which are immune to error relative to the referring expression in question. (If there is to be an object of thought at all in a given case, then of course this criterion must also come together with the determination by the output connections between the judgement and the thinker's

dispositions to action.) Now although not infallibly, as we have seen, first person pronouns can nevertheless be used in making judgements self-ascribing physical, bodily, properties, as well as in those ascribing mental properties, which are immune to error through misidentification. Hence the object of such judgements, the self, is not a Cartesian ego, but a bodily subject of both mental and physical properties.

'I' is a referring expression. On any occasion of use it picks out the thinking subject using it. It is the way things are with him which determines whether the judgement made is true or false. Which object this is, upon the condition of which truth or falsity depends, is itself partly determined as that thing which the thinker comes to know is *F* in making judgements of the form "I am *F*" which are immune to error through misidentification. In some such judgements, '*x* is *F*' is a predicate ascribing corporeal characteristics. The self, then, which is the object thus identified in thought by the use of 'I', is not merely a conscious thinking thing, but the very thing which is *F*, which is either hot or cold, with legs crossed or uncrossed, sitting or standing, and so on, from the mouth of which the judgement may or may not be expressed: a material, bodily thing. The subject of thought is a physically extended object.

3. A Cartesian response to Evans

At this point, the determined Cartesian will object that two quite different uses of 'I' are being confused.¹ Evans is right that self-ascriptions of both mental and physical properties can be made which are immune to error through misidentification, and right in his account of the source of this immunity in the reference-fixing role of the knowledge expressed in

¹I have been helped in formulating this response by discussions with Mike Martin.

such judgements. He is mistaken, though, in assuming that the very same object is identified in both kinds of case. In self-ascribing mental properties, I refer to my essential self, the immaterial Cartesian ego; in self-ascribing physical properties, I refer to my body. All this is perfectly in keeping with Evans' general account of object-involving demonstrative identification. And the equivocation is easily explained by the intimacy of the substantial union of mind and body. But it is equivocation all the same. So there is not a single individual to which both mental and physical predicates are equally applicable.

As things stand, I can see no way for Evans simply to rule out this reposte.² Nevertheless, there may be a way forward on the basis of a deeper reflection on the content of bodily awareness and the nature of our self-ascription of bodily sensations. Descartes himself is well aware that a partition of self-ascriptions into the mental and the physical, along the lines exploited above, is not as straightforward as it might at first seem. Purely intellectual properties of rational thought are unproblematically mental. There are equally unproblematic purely physical properties we ascribe to our bodies, such as posture and location for example. But perceptual and bodily sensations seem essentially to involve ascriptions both to the mind and to the body. In particular, when I am aware that I am being prodded painfully just above my right knee, say, I am aware both of a psychological and a material condition. Thus, on the Cartesian line sketched above, my judgment, "I am being prodded painfully just above my right knee", is really a misleading composite of two

²He does suggest a possible line of reply (1982, 221-224); but this is unsuccessful in my view. His idea is that the Cartesian conception of 'I' as equivocal introduces an unacceptable sophistication into our thoughts about our bodies: bodily self-ascriptions can be made only indirectly via the descriptive identification "the body from which I hereby have information" (221). It is not clear to me, though, why the Cartesian has to employ a descriptive rather than a perceptual demonstrative model for reference to the body. Yet on the latter, Evans' worry about indirectness at least is surely unfounded.

logically independent 'self'-ascriptions, "I_e am in pain" and "I_b am being prodded just above the right knee", where 'I_e' refers to my true self, the Cartesian pure ego, and 'I_b' refers to the body with which it is contingently bound up, and which is therefore mine, but not *me*. Presumably the idea then is that, as the natural, evolutionarily or divinely reinforced, and therefore 'appropriate', effect of the prodding of that body there, direct awareness of, or being subject to, the pain constitutes some kind of indirect perceptual awareness of the physical state of the body-part in question.

The crux of this Cartesian conception is the claim that commonsense ascriptions of both mental and physical properties to a single entity are ultimately misleading. Fundamentally, the entities figuring in mental and physical ascriptions are ontologically quite separate. "All basic subjects [ie. everything which is represented as a mental subject in the *philosophically fundamental account* of things] are wholly non-physical" (Foster 1991, 203-204). A particular consequence of this, in its Cartesian form,³ is the fragmentation of certain apparently unitary 'self'-ascriptions, most notably of bodily sensations, into two independent ascriptions to totally different things, one of purely mental properties to the conscious subject of thought, the wholly non-physical basic subject, the other of physical properties to the bodily object suitably related to it.⁴

³See Foster 1991, sections 7.1 & 7.3, for the contrast between Cartesian and Humean forms of dualism. I agree with his central contention in section 7.3 that "there is no escaping from what initially strikes us as self-evident, that mental items can only occur as the token states and activities of subjects, and that this ontological dependence on subjects forms part of our fundamental understanding of their nature" (219). Thus the Cartesian (rather than Humean) version of this dualist thesis is really the only alternative to the commonsense view that even on the philosophically fundamental account of things, persons are bearers of physical as well as mental properties.

⁴In fact there is a serious tension in Descartes' own writings about the relation between mind, body and person, particularly in connection with bodily sensation. Two

Physical 'self'-ascriptions like "Ib am being prodded just above the right knee" are indeed immune to error through misidentification relative to the 'personal' pronoun 'Ib'. But Evans is wrong in inferring from this that one and the same single individual is the subject of both pain and prodding, that $I_b = I_e$. For the Cartesian has a perfectly coherent alternative explanation of the immunity, quite consistent with his dualism. Indeed he seems to have the luxury of a choice between two such accounts. A first might run as follows. Which body is picked out by 'Ib' is determined, in part, as the normal source of

incompatible positions have strong textual support. First, there is the official dualism, on which a human being is a concoction of two ontologically separate substances, a mind and a body. Everything there is to say about such a person consists in some combination of independent ascriptions of radically different properties to these two quite distinct entities. The relation of embodiment which obtains between them, over a given period of time, is then to be construed as wholly reducible to a set of quite contingent causal-functional relations obtaining between these ascriptions over that time. Second, there is a substantial personal unionism, on which a human being is an integrated individual substance, in whom the intermingling and coextension of the mental and the physical explain the experience of embodiment given in bodily awareness. Bodily sensation can only properly be understood as predicated of a single unified entity with both mental and physical properties.

The Cartesian I am concerned with is the more standard exclusive proponent of the former. My argument is that Descartes is right to move towards the latter in his discussion of bodily awareness. Given their incompatibility, this constitutes an objection to the official dualism. The only alternative is to suppose that there are really three distinct substances on the scene: the immaterial mind which is the subject of pure thought and its modifications; the material body which is the subject of pure extension and its modifications; and the integrated person which is the subject of phenomenological sensation and its modifications. Descartes does sometimes suggest this view; but a distinction between the subject of thought and the subject of sensation, over and above any standard mind-body dualism, seems to me quite unacceptably to overstep the mark of ontological excess, although I cannot argue the point here. For commentary on Descartes' views in this area see Wilson 1978, ch. VI § 6; Cottingham 1986, ch. 5, §§ 4 & 5; and Schmaltz 1992, 281-325.

the physical information conveyed in bodily sensation, for example, the body just above the right knee of which prodding standardly causes painful sensation of the experienced type. For the embodiment relation between a given mind and body is simply constituted by a whole system of epistemologically and operationally appropriate causal-functional relations of this kind between the two. Now a subject has *knowledge* on this basis that there is prodding just above the right knee only if his painful experience is a reliable indicator of this fact; and this is so, by definition, only with respect to the body thus constituted as his. So it is impossible that he should be knowledgeably right about prodding just above a right knee, but wrong that it is prodding just above *his* right knee, because, and only because, he wrongly takes the body involved to be what 'Ib' refers to.

Alternatively, a second dualist strategy, which is also in fact a consistent supplement to the first, simply transposes Evans' general account of perceptual demonstrative reference, given above, into an explanation of the immunity of certain bodily 'self'-ascriptions to error through misidentification. The basic idea would be that judgements like "Ib am being prodded just above the right knee" are effectively of the form "*That* knee is being prodded" where the reference-fixing quasi-perceptual information link is provided by internal bodily experience. Neither account is completely without its difficulties. But I want to move on now to consider a rather different line of argument, and I shall have to leave the matter here.

4. The nature and spatial content of bodily awareness: a more direct objection to Cartesian dualism

We should focus rather more carefully on the intrinsic nature of the painful sensation of

which the basic mental subject is directly aware, on the broadly Cartesian account, the aspect of bodily sensation which is genuinely a property of the subject of experience. In particular, we should enquire into its spatial content. In doing this I shall follow quite closely the discussion in O'Shaughnessy 1980. My point is to see whether anything can be made of a strong intuitive contrast between bodily sensation and 'external' sense perception. The Cartesian applies very much the same model in both cases, on which the mind's sensational properties constitute its indirect awareness of their normal and appropriate causes.⁵ Yet in bodily awareness, but not in sense perception, psychological properties are themselves located in the physical object of awareness, namely the body. Thus there is some prima facie support for the idea that the body-part in which sensation is set is a part, not a mere possession, of the conscious mental subject, that the subject of experience extends physically to encompass the bodily location of sensation.

So we need to ask what exactly the raw data of bodily feeling are. What is the intrinsic nature of the painful sensation, which is genuinely a property of the basic mental subject, and constitutes the epistemological given in his quasi-perceptual bodily awareness of being prodded painfully just above the right knee? When I am aware of a sharp pain in the back of my left hand, or an itch on the end of my nose, what is it of which I am absolutely immediately aware, through which I come, indirectly on the Cartesian's account, to be aware of some disturbance determinately located at those parts of my body?

An initial suggestion might be that the direct objects of awareness in bodily sensation

⁵I mean this model of both sense perception and bodily awareness to be neutral on the question whether the Cartesian spells out the fact that a given immaterial mind has a particular sensational property in terms of its apprehension of some kind of sensation-object or in terms of its sensing with a certain intentional content.

are *purely* sensational.⁶ In particular, the idea would be that one is only derivatively presented with a particular spatial location on the basis of intrinsically non-spatial, purely qualitative, dimensions of variation in the sensational given. On this view, bodily feelings of the kind we are considering come in themselves as nowhere. Values on some intrinsically non-spatial dimension in their qualitative variation nevertheless correspond with each potential determinate bodily location of sensation, on the basis of a sensitivity to which correspondence the subject becomes indirectly aware of the condition of particular parts of his associated body.

This suggestion is highly problematic though. To begin with, it is impossible to erase the immediate inclination to act in connection with the particular location of bodily sensation from our conception of the epistemological given in bodily awareness. Feeling a sharp pain in the back of my left hand, or an itch on the end of my nose, the appropriateness of action determinately concerning these actual bodily locations is written into the very nature of the experience itself, rather than anything somehow inferred from its prior, intrinsically non-spatial, qualitative essence.⁷ Further, there are no such things as back-of-the-right-hand-ish sharp pains as opposed to back-of-the-left-hand-ish sharp pains, in that the right / left distinction need not be matched by any *qualitative* distinction at all.

⁶Here and throughout this discussion of the epistemological given in bodily awareness I mean to include as direct objects the properties of things of which one is immediately aware. In the end, my view is that the only object, strictly speaking, of bodily awareness is the animal body which is the subject of awareness. The basic form of the direct anti-Cartesian argument I am interested in is as follows. The properties of which we are immediately aware in bodily awareness are spatially located properties of the body which are also necessarily properties of the subject of that very awareness; therefore the subject is a material object. Quassim Cassam and Michael Martin are concerned with very closely related issues in their contributions to this volume.

⁷See section 5 below for a development of this point.

Indeed the idea of distinctive *qualia* associated with every bodily location is absurd. For a qualitatively unchanging sensation can move, and *change* its location: for example, that very same burning feeling might be moving gradually down one's throat. Similarly, qualitatively identical itches might come sometimes as on the end of one's nose and other times as (infuriatingly out of reach) between one's shoulder blades.

I should emphasize here that my claim is certainly not that the qualitative and spatial dimensions of bodily awareness vary as a matter of fact completely independently. This is surely false.⁸ For example, I have never had nor will have a feeling in my left foot qualitatively like the nervous sensation of butterflies in my stomach. Dependence of this kind must be contingent and quite limited though, given the cases I cite. The claim is rather that the undeniable spatial component in bodily sensation cannot generally be inferred from an intrinsically non-spatial qualitative given. Spatial content must be a part of what is epistemologically basic in bodily awareness.

So there is, over and above the sensational *quale* of a bodily feeling, an ineliminable presentation of some more-or-less specific place in egocentric space, which is not a mere construct out of any purely sensational qualitative features. Thus bodily awareness is intrinsically spatial. Apparent location is an essential component of the epistemological given in bodily sensation.

Recognizing this might prompt a second suggestion, that the direct objects of awareness in bodily sensation are feelings-apparently-at-a-particular-place-in-egocentric-space. The crucial claim here is that the intrinsic spatiality of bodily awareness is given

⁸Tony Marcel brought this home to me.

prior to and independently of any information as to which body-part is involved in the awareness at that given location. Feeling is determinately located in a particular part of the body only derivatively, as follows.

we run the tip of a finger along the body-thing until the sensation it produces occupies the same position on the sense 'skin' as does the sensation to be located; and this procedure fixes a point on the body-thing that we call 'the location of the sensation'.
(O'Shaughnessy 1980, 163)

This second suggestion is also unsatisfactory. If we are to propose an epistemological given in bodily awareness of feeling-at-a-point-in-space, then we should be able to make sense of the idea of determinately located yet utterly unattached feeling. But what grip can we get on this idea of a feeling existing "in mid-air *simpliciter*, ie. not even seemingly in a seeming limb" (O'Shaughnessy 1980, 161)? Certainly phantom limb sensations are more-or-less determinately egocentrically located. And they are not in fact set in any part of the subject's body. For there is no actual limb where they seem to be. Nevertheless, they do come immediately as if in a particular body-part. That the pain is in a phantom *foot* is not derived from the fact that there is pain which seems to be at a place where the foot would have been if it were still there. It is given directly in the experience of pain-in-the-foot-there. So although the revised suggestion improves on the first by admitting the intrinsic spatiality of bodily awareness, it still falls short of the truth by ignoring the immediate relation between awareness and particular parts of the body.

We cannot get away from the fact that bodily sensations immediately appear as determinately located not only in egocentric space, but also in specific body-parts filling

those locations. Indeed, they come as determinately egocentrically located precisely in virtue of coming as set in particular parts of the body extending to particular places in egocentric space. Again O'Shaughnessy captures this precisely, as follows.

The sensation comes to awareness as at 'a point in physical space' - and not just as at 'the part of the body it is in' - *only to the extent that* the aesthetised subject seems to himself immediately to extend into certain nooks and crannies and the sensation to be cited therein. (1980, 221)

There are two extremely important points here. First, the intrinsic spatiality of bodily awareness is sustained by its directly presenting certain parts of the subject's body as filling particular egocentric locations. Second, this presentation of the body as determinately extended in physical space is in turn dependent upon the bodily sensation itself apparently being set in that body-part there.

In sensational bodily awareness, of a sharp pain in the back of one's left hand say, or an itch on the end of one's nose, the experience itself is intrinsically spatial. Furthermore, knowledge where to point to locate the sensation, knowledge of which body-part the sensation is in, and knowledge of the egocentric position of that body-part are "epistemologically on a par": as basic. To put this thought in O'Shaughnessy's own terms once again.

the basic 'given' is, not just feeling, not just feeling-in-a-certain-body-part, but *feeling-in-a-certain-body-part-at-a-position-in-body-relative-physical-space*; and so, also, *certain-body-part-at-a-position-in-body-relative-physical-space*: the latter being

disclosed along with and via the former *and* the former being disclosed along with and via the latter. (1980, 165)

Central to the current argument, then, are the following three points.

1. Bodily awareness is intrinsically spatial: the apparent location of sensation is as essential to its very nature as its purely qualitative feel, and is in no way derived from any intrinsically non-spatial variation in it.
2. This spatial location of sensation only comes to light as one is aware of one's body determinately extending into, and filling, certain regions of the perceived physical world.
3. This awareness of one's body filling physical space both rests upon, and, more importantly, provides intrinsic spatiality in virtue of, the setting of bodily sensations in particular body-parts.

In bodily awareness, one is aware of determinately spatially located properties of the body which are also necessarily properties of the basic subject of that very awareness. In contrast with external sense perception, a psychological property of oneself is physically located in or on the body. Therefore rather than any mere possession, the animal body is the conscious mental subject of bodily awareness.

5. Extending the argument

The case against a Cartesian conception of the self can, I think, be strengthened by

considering further the precise spatial content of bodily awareness.⁹ We can begin with a comparison between ourselves and a bodily deafferented patient studied by Jacques Paillard.¹⁰

Below her nose, G. L. has no sense of touch or kinaesthetic sensation. She is unable to detect light-to-normal pressure or vibration, but shows some sensitivity to deep pain (eg. when prodded with a needle or pressed firmly with a finger or thumb) and temperature. Her motor fibres are unaffected and she can certainly make willed movements. With respect to the minimal bodily awareness she has though, of a hot or painful stimulus say, her sense of spatial location is extremely interesting. She is quite unable immediately to act in connection with the location of the sensation, by pointing, protecting, rubbing, scratching or whatever. But she can point to the correct location on a drawn diagram or model of her body. She can mimic our normal ability to reach immediately and without reflection for the place of bodily stimulation only indirectly, by groping around for the relevant body part and moving along it to the right location. This is presumably done on the basis of her representation of this location on a detached, third personal, image of her body, of precisely the kind serving her discrimination of the location on a diagram. (Indeed she will go to the equivalent place on the examiner's body if his body-part is placed in her groping path.) For given such a representation, she has a kind of knowledge where the sensation is on her body, and where in relation to other body-parts this place is likely to be, which makes no *immediate* contact with any ability to act in connection with that location and explains her actual performance. Compare my position knowing that my key is in a

⁹Again I have profited from O'Shaughnessy's (1980, 224-226) discussion of these issues here.

¹⁰Paillard reported his patient G. L. in detail during a visit to the King's College Cambridge Research Centre Project on Spatial Representation in 1992.

red box under a blue cushion between the chair and the window - perhaps a child has hidden it and tells me only this. Both here and in G. L.'s case, what is required is a search around the relevant area, homing in on the goal location by using the cues encountered along the way.

So G. L. has knowledge of the location of those very few bodily sensations of which she is aware which is quite different in kind and content from our own. It may still be true that this minimal awareness in some sense satisfies O'Shaughnessy's tripartite description of "feeling-in-a-certain-body-part-at-a-position-in-body-relative-physical-space". For she may well know that the pain is in her left hand somewhere out by her hip. But this has no immediate significance for the control and coordination of her action in connection with that location. She has, in the first instance, simply a disengaged, descriptive, grasp of which body-part is in pain, along, perhaps, with an approximate sense, again purely descriptive, of where that body-part stands in relation to others. Neither of these components of the spatial content of her awareness, though, has any direct implications for how she should act so as to point to, protect, rub or scratch the location of sensation. This can only be discovered by an unreliable, 'trial and error', investigation of herself with continual reference to the detached, third personal image of where the pain is on her body.

G. L.'s relation to her body really is rather like that of a sailor in a ship (Descartes 1984, 56). When it is damaged, a red light flashes on an electronic diagram of the ship at the place corresponding to the location of the damage. The pilot must then send out the mechanics to hunt around the relevant area for anything that looks as if it might be responsible for the alert, and try to put it right. What is missing in the spatial content of her impoverished bodily awareness is the first personal or egocentric element in the way

sensations are given location in our case by their setting in particular body-parts. All she has is something like a detached, third personal description.

Our own position, as we have seen, is quite different. The spatial content of our feeling-in-a-certain-body-part-at-a-position-in-body-relative-physical-space is given indexically in terms of its implications for our direct action in connection with that location. Which bodily location is involved is given in the first instance, at least in part, as a kind of practical demonstrative: 'there', said reaching for the place in question. Knowledge how to point to, protect, rub or scratch the location of sensation is not so much discovered by some comparison of the consequences of one's flailing movements with an external picture of a bodily target, as present immediately as part of what it amounts to for the sensation to seem to be where it is.

The intrinsic spatial content of normal bodily awareness is given directly in terms of practical knowledge how to act in connection with the bodily locations involved. The connection with basic action is absolutely not an extrinsic add-on, only to be recovered from a detached map of the vessel the subject of awareness happens to inhabit, on the basis of experiment and exploration. It is, rather, quite essential to the characterization of the spatiality of bodily sensation. This spatiality is, as we have seen, itself ineliminable from the nature of bodily awareness. So the subject of such awareness is necessarily an embodied agent. Furthermore, the properties of the body of which one is aware in bodily awareness are sensational properties of the subject of that very awareness. Therefore the subject of awareness *is* the physically extended body.

Location on a certain body-part in egocentric space cannot be detached from the given

in our bodily awareness without loss. This spatial content cannot normally be characterized independently of the practical knowledge how to act in connection with that location on a certain body-part in egocentric space. The spatial content is partially specified in these practical terms and cannot correctly be specified otherwise. For on any non-practical, third personal specification, it follows that the knowledge how to act in connection with the relevant bodily location is a subsequent experimental achievement, of the kind G. L. has to make, or I have to make in retrieving my key in the situation described above. But we are not related to our bodies as a sailor is present in a ship in this way. So the subject of normal bodily awareness is itself a subject of both mental and physical properties.¹¹

In normal bodily awareness the experiencer is presented as extended, because the sensational property of which he is the subject is (seemingly) physically located as a property of a given (seeming) body-part at a certain location in egocentric space, which spatial content is in turn given, at least in part, in terms of its immediate implications for his basic physical action in connection with that location. Of course all this may on occasion be illusory in all sorts of ways. Nevertheless, it is normally veridical, when things are indeed bodily how they seem. In these cases the extended physical body which provides the determinately located setting for the psychological sensation must *be* the subject of sensation. The basic subject is therefore a mental-and-physical subject-object physically extended in space. Hence, it seems, Cartesian dualism is inconsistent with the correct account of nature and content of bodily awareness.

¹¹I do not mean to imply that things are any different for G. L. in this respect, just that her status as a such cannot be inferred from the spatial content of her bodily awareness in the way I suggest.

To restate the argument once again, in a slightly different form, two points should be stressed.

1. The direct object of bodily awareness is intrinsically spatial, not purely sensational; the object of awareness itself is spatially located: a property of a given body-part at a particular location in egocentric space.
2. The direct object of bodily awareness is genuinely psychological, not merely spatial; the object of awareness is itself a mental item: a psychological property of the basic subject of experience

Together these imply that the psychological subject is a spatially extended object. The property ascribed is a property of the spatially extended body, but one which is also essentially a property of the subject of consciousness itself.

6. A Cartesian last stand

Again the determined Cartesian has a response here. She will insist that our physical location of bodily sensation is, although quite natural, strictly in error: the result of some kind of projection. She may well admit that we have no awareness of the projectile prior to projection. In other words, she might accept that the epistemological given in bodily awareness is intrinsically spatial, just as I characterize it. Nevertheless, she will insist that this physical location is always a mere appearance. In so-called veridical cases, the illusion of a certain kind of sensation set in a particular body-part might inform us about the

physical state of that part. Any idea that sensation itself is physically located, or that any property of the body we thereby come to know about is a psychological property of the conscious subject, as it appears to be, is in error though. Sensation proper is correctly ascribed to the wholly immaterial mind, and any appearance of bodily location is part of the close epistemological relation between mind and body constitutive of contingent embodiment. 'Illusory' cases that we are inclined to describe in terms of a sensation actually being somewhere other than where it seems to be, would have to be regarded as some further, deviant, breakdown in the normal suitability of this relation for the subject's acquisition of knowledge about how things are with the body with which he is (temporarily) associated.

This line of reply seems to me quite untenable even on the dualist's own terms, and is straightforwardly inconsistent with the basic motivation for her position. The driving force behind the Cartesian conception of the self as a wholly non-physical mind is a commitment to take as authoritative what is given epistemologically basically in introspection. Yet in normal bodily awareness, this is an immediate presentation of oneself as a spatially extended material subject of experience. Nothing less does justice to the phenomenon. The spatiality cannot be stripped away from bodily sensation without significant loss. What remains is nothing remotely recognizable as our experiential awareness of our bodies. On its own terms, then, the dualist conception of the self is undermined by a proper account of our bodily awareness.

It might be suggested in response that this is a bit too quick.¹² For Descartes himself notoriously distinguishes between what is clear and distinct in our sensations and what is

¹²I am grateful to Quassim Cassam for pressing this point.

merely obscure and confused (1985, 216-217). The point would then be that we have clear and distinct knowledge of bodily sensations only when we consider them as purely qualitative, non-spatial, features of an immaterial mind. Any purported conception of them as properties of located body-parts is really obscure confusion. I think there are two possible grounds for this response, both of which are highly problematic. First, the authority of what is epistemologically basic might be restricted to those things of which a person is in principle infallible. Perhaps this succeeds in creating some disanalogy between the qualitative and spatial components of bodily awareness, although the infallibly introspectible base would surely shrink dramatically under pressure. But the real price of defining clarity and distinctness in terms of infallibility in this way is the total collapse of Descartes' foundationalism into extreme scepticism. If we acquire basic knowledge only by absolutely infallible methods, and all non-basic knowledge is supposed to be derived from basic knowledge, then we know almost nothing: we certainly lose all epistemological contact with the real world in which we live. Second, the case for obscurity in our grasp of (bodily awareness as awareness of) properties of our bodies which are necessarily properties of ourselves, the subjects of awareness, may rest on an unfair presumption of what is required. If we take a completely detached view of our bodies as physical objects totally on a par with any inanimate lump of matter, other than in respect of their complexity perhaps, then it will indeed be difficult clearly and distinctly to conceive of any of their properties as necessarily properties of a conscious subject of thought and experience. But why is this point of view obligatory? As I shall argue in the final section, the difficulty disappears if we allow ourselves the internal perspective on our bodies *as ours*, as our spatially extended selves.

Although my own line of argument is rather different from Evans', I think he is quite

right that we have in the epistemology of bodily awareness a most powerful antidote to the Cartesian conception of the self. The picture strongly emerging is one of the conscious self as a materially embodied organism, a subject of experience in which this realm of the psychological itself extends physically into the extremities of the animal body. The traditional idea of the true, mental, self as the extensionless inner sanctum, or control centre for the dispensable bodily machine is an illusion, unsupported even by the nature of the psychological phenomena themselves. In particular, it fails to do full justice to the intrinsic, first personal, *spatial* content of bodily experience.

7. Experience of ownership and subject as object

The anti-Cartesian line of argument I have been presenting also suggests a direction in which to move to resolve Nagel's (1970) worry about how we are possibly to conceive of ourselves both as subjects of experience and as elements of the objective order. For in bodily awareness, the subject of awareness is presented to himself precisely as a physically extended body in the spatial world of other material things.

A good way to bring out this thought is in connection with the question how we experience our bodies *as ours*. Clearly this is not, and cannot be, an external perceptual phenomenon. For perceiving it from the outside, our body has no indelible stamp of ownership. It appears just as one object among many, although it is one certain features of which we know very well. Yet its being ours strikes us as far more than the transferable contingency of anything we simply recognize perceptually as ours in this external way. Erwin Straus (1967) puts the distinction like this.

In the phrase 'my house', *my* stands for something owned by me [something I might recognize in a glance as mine and know intimately, but which I can sell or trade, something which can go from *one* owner to *another*]. In the phrase 'my hand', the same word refers to me, the owner, as a live body. (112)

The position I have been developing allows us to see how this distinctive sense of ownership might have its source in bodily sensation.¹³ For in bodily awareness, I have argued, the subject is aware of *himself* as a spatially extended body. So bodily ownership is experienced in this extension of the subject of experience into the material world. The peculiarly intimate sense in which my body-parts seem to be mine is just that in which they seem to be parts of the spatially extended physical body which I seem to be. Experienced bodily ownership, then, is awareness of *oneself* as extended in space.

Furthermore, we can now see how the Nagel problem is misguided. The difficulty is supposed to be in a person identifying himself, the subject of thought and experience, with a physical thing. In fact Sartre (1969) presents the very same problem, and already has a sense of how it is made quite unmanageable in the formulation.

Actually if after gasping 'my' consciousness in its absolute interiority and by a series of reflective acts, I then seek to unite it with a certain living object composed of a nervous system, brain, ... whose very matter is capable of being analysed chemically ... , then I am going to encounter insurmountable difficulties. But these difficulties all

¹³It would be a one-sided account of our sense of bodily ownership which focussed *solely* on the contribution of bodily sensation though, and left out a person's capacity for basic, non-instrumental, physical action.

stem from the fact that I try to unite my consciousness not with *my* body but with the body *of others*. (303, quoted at Evans 1982, 266)

If, on the other hand, the problem is supposed to be for me to unite myself qua conscious subject with *my* body, then there is really no difficulty at all. For in bodily experience I am aware of parts of my body precisely as physical parts of myself, the material subject of that experience. Experienced embodiment just is a presentation of the subject as a spatially extended body.¹⁴ Again, as with the explicitly anti-Cartesian reflections above, we come a long way simply by recognizing the absolute inseparability of the mental and the physical in bodily awareness.¹⁵

¹⁴As Evans is reported as remarking (1982, 266), this knowledge of my own body from the inside is an essential groundwork for my identification of myself with an element of the objective order, rather than a full account of it. Certainly some capacity for self-location is an additional requirement. For more on this very important topic, see Evans 1982, 222-224, Cassam 1989, and Brewer 1992.

¹⁵Many thanks to José Bermudez, John Campbell, Quassim Cassam, David Charles, Bill Child, Naomi Eilan, Elizabeth Fricker, Jennifer Hornsby, Tony Marcel, Mike Martin, Paul Snowdon, Helen Steward, Roland Stout and Timothy Williamson for their helpful comments on earlier versions of this chapter.

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