Bodily Awareness: A Sense of Ownership

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When Descartes denies that he is lodged within his body as a pilot is within a ship, he draws our attention to the special phenomenological relation that each of us bears to his or her own body. For we experience our bodies “from the inside” and not just as one more among the material objects of perception. In this paper I seek to give an account of this special phenomenological relation and the bearing it has on how each of us is related through perception to his or her own body.

I will assume a perceptual account of bodily sensations: the feelings of pain, pleasure, heat, cold and pressure. Rejecting a long tradition that assumes that bodily experiences are nonperceptual states immediately caused by action on the body, I will take having such experiences as being one of the ways in which a subject comes to be aware of events in her body or the state of various body parts. In the first part of the paper I will offer an account of the special phenomenology of the body that is consistent with such a perceptual account of sensation: when one feels a sensation, one thereby feels as if something is occurring within one’s body.

In the second part of the paper I will argue for certain consequences of this account. If we take bodily sensation to be perceptual and to have the phenomenological character I suggest, it will turn out that the subject can be aware only of her own body and the parts of her body, and not of things that do not belong to her body at all, through such sensation. The awareness one has of one’s body through such experience is therefore distinct among the perceptual modes in providing a way in which one can come to be aware of only one object and its parts.

This feature of bodily awareness has led some philosophers to suppose that in being aware of one’s body in this way, one is introspecting the self, albeit in a bodily mode. In the final section of this paper I argue against this assimilation of bodily awareness to self-awareness.
1 A Phenomenological Sense of Ownership

What is it to have a feeling of pain in your left ankle? One traditional view treats such bodily sensations as nonperceptual sensory experiences, in contrast to visual, tactile, and auditory experience. In vision one comes to be aware of how things are in the physical world around one. When you see a vase of roses on the table, you have a visual experience as of the presence of red flowers. We can talk of this visual experience as being correct or veridical, as opposed to illusory or incorrect, depending on whether there are such flowers in front of you. According to the traditional view of bodily sensations, such sensations can be neither veridical nor illusory, for they are "as of" nothing at all in the objective world. In contrast, when one has a feeling of pain, one is aware of some purely subjective state of affairs that obtains just in case one is having such a sensation and that in itself points to nothing outside of the inner mental realm to the physical world beyond.1

The traditional view flies in the face of the naive phenomenology of such experience. 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.

This should lead us to question the traditional idea that sensations are special mental objects of awareness. Philosophers often take our talk of having an ache or feeling a pain as being a commitment to the existence of mental objects—aches and pains—of which we are aware when we feel pain. When one feels an ache in one's left ankle, one is certainly in a mental state, feeling a sensation, just as when one sees something, one is in a mental state, having a visual experience. In the latter case, the object of the visual experience is the physical object one is perceiving. In the former case, the object of a bodily sensation (understood as a state of mind), such as an ache in the ankle, is the body part that feels a certain way, e.g., that aches. The qualities that characterize the experience qualify the part of the body that one is aware of: it is one's ankle that hurts, not some inner mental object.

Some philosophers hold a perceptual theory of sensation because they wish to deny that there are any subjective qualities or qualia belonging to sensations, or to any sensory experience.2 That is no part of what is assumed here. It may well be that we need to understand the quality that the experience attributes to the body part, the quality of hurting, say, in terms that make reference to subjective qualities of experience, just as Lockean theo-
ories of colors make reference to subjective qualities of vision. All that is being claimed here is that the objects to which such qualities are attributed in experience appear to the subject to be body parts and not mere mental objects.

In this paper I will simply assume and not argue for such a perceptual model of bodily sensation. But consider one point in its favor: On such a view, we can easily explain Wittgenstein's observation that one does not feel a sensation simply to be in a particular location within objective space but rather feels it at a location that is primarily that of a body part and only secondarily the objective location of that part. If we think of the objects of such sensory states primarily as mental objects, this fact will seem mysterious—why should a mental object be tied to parts of one's physical body rather than regions in space? But if we think of the phenomenological character of sensation representationally, an unambiguous answer is forthcoming: the experience is as of a certain body part, as warm, for example, and feels to be occupying a certain spatial position relative to other body parts.

Can the perceptual account of bodily sensation accommodate Descartes's observation that there is a distinctive phenomenology of the body? If one perceives one's body through sensation, just as one perceives other objects through the five senses, does this not make one's body just another object among the many that one perceives? And if one's body merely appears to one in all experience as just one more object among the many that one perceives, then there would be no room for the intimate experience of the body that Descartes observed.

To respond to this, we need to look more closely at the feature of sensation mentioned above. When I feel an ache in my ankle, the ankle that feels hurt to me does not just feel like an ankle belonging to some body or other. Rather, the ankle feels to me to be part of my body. This feeling is present even in the case of phantom-limb sensations. It is not as if it feels to the subject as if there is pain at some place in midair. Instead, it feels to her as if a part of her body is located at that place, even though the relevant body part no longer exists. The perceptual account can offer the following explanation of the distinctive phenomenology of the body: in having bodily sensations, it appears to one as if whatever one is aware of through having such sensation is a part of one's body. This contrasts strikingly with the traditional five senses, which can present to one a manifold of objects, one's body being merely one among this manifold.

This phenomenological quality, that the body part appears to be part of one's body—call this a sense of ownership—is itself in need of further elucidation. It seems that if any of our bodily sensations include this phenomenological quality, then they all do—at least to the extent that such sensations
have a location.¹⁰ Compare Brian O'Shaughnessy's claim to find "it all but impossible to comprehend a claim concerning sensation position that detaches it from actual or seeming limb, e.g. 'A pain to the right of my shoulder and not even in a seeming body part'."¹¹ Now there appears to be a tension between the claim that sensations have this positive quality and O'Shaughnessy's claim that we can't conceive of how some might lack it. If the sense of ownership is a positive quality of sensation over and above the felt quality of sensation and the location—that there is hurt in an ankle, for example—then it should be conceivable that some sensations lack this extra quality while continuing to possess the other features. That is, we should be able to conceive of feeling pain in an ankle that does not positively appear to belong to one's own body. Just as we conceive of cold as the converse quality of warmth, could we not also conceive of a converse quality of ownership of sensation location such that one might feel pain in an ankle not positively felt to belong to one's own body? If O'Shaughnessy is right, we can make no sense of either possibility.¹² Since there is little difficulty in conceiving that one might have some way of perceiving the parts of others' bodies, the problem here concerns the qualitative sense of ownership that our sensations actually have. A fuller account needs to be given of this phenomenological characteristic.

An answer is indicated by the kind of example that makes the phenomenological feature itself most salient. As Thomas Reid noted, in actual experience one can shift one's attention from the physical object being felt to the sensations one enjoys while touching it.¹³ Reid took this as evidence for the presence of purely subjective sensation in all perception, albeit sensation not normally attended to. However, Reid's interpretation of the phenomenology does not seem to be the correct one. When one attends to the object felt, one is aware of various properties of the object—its surface texture, how solid it is, and its general shape—and one is aware of the object "out there." Shifting one's attention to one's sensations, one comes to be aware of one's bodily sensations elicited in this perception.

Bodily sensations are themselves a form of perception, I claim, and not something purely subjective prior to genuine perception. So, in shifting one's attention, one is not moving from the external, physical world to introspective attention of the inner, mental world. Rather, one is shifting one's attention from objects that lie outside one of one's boundaries, the surface of a hand, to what is going on at or beneath that bodily boundary. This invites the following conjecture: for me to feel as if some part of my body occupies a region of space through having bodily sensation is for it to seem to me as if that region falls within one of the boundaries of my body.
This does not yet answer the initial worry. If “falling within one of one’s boundaries” is a positive quality of a sensation over and above the qualities and location of sensation, then it should be conceivable that a sensation should lack this feature, and also conceivable that sensations could have the opposing feature of “falling outside of one’s boundaries.” This is answered by recognizing that the quality of falling within one of one’s apparent boundaries is not independent of the felt location of sensation. The sense one has of the location of sensation brings with it the sense that the location in question falls within one of one’s apparent boundaries.

This requires us to look to the structure of the spatial content of bodily sensation. Consider first the spatial content of kinesthetic experiences, another example of awareness of one’s body. If you raise your hands above your head, you will be aware of the position of both hands in space relative to each other. This awareness of their relative positions is an awareness of how they are displaced across a region of space beyond the space in which your body is located and in which you have neither kinesthetic nor sensational awareness. In this case, to give an adequate account of the spatial content of kinesthesia, we have to make reference to regions of space of which the subject is not currently in a position to have bodily experience. More generally, in having a sense of the shape of your body through kinesthetic awareness, you will be aware of its shape as in a space that extends beyond the limits of your body and encloses it. So the locations where one’s hands feel to be are felt to be locations within a space that extends beyond the space one is then aware of. In turn, the sense of falling within a boundary may be no more than the sense that the location in question is within a space that seems to extend into regions that one could not currently be aware of in this way. Any region in which it seems to one that one could now be feeling sensation will thereby feel to one to fall within one of one’s boundaries; at the same time, one has the sense that there are locations outside of one’s boundaries, whatever these happen to be, since the space one feels these locations to be part of feels as if it extends beyond whatever one does feel.

One may picture this sense of boundedness in the following way. There is no distinction to be drawn between the point from which one is aware of objects and the objects of which one is aware that then stand in some relation to that point. Rather, such awareness seems to extend only to the apparent limits of the body, to each of the body’s apparent boundaries. One has a sense that there are such boundaries—a sense one would have even if one was not aware where the boundary was—in virtue of the way in which parts of bodies appear to be located in a space that extends to regions one does not feel in this way. The modal contrast here, between regions where one
could currently feel sensation and those where one couldn’t, is to be drawn within the content of the bodily experiences themselves. The spatial content of these experiences is such that one is aware of a region as one in which one is aware of things in this manner, in contrast to other regions of space.

While these regions of space will not be occupied by anything that can be felt through bodily awareness, this is not to say that the objects there located are not accessible by any sense experience. They might be, of course, by vision. More interestingly, the objects of touch occupy a space that lies outside the limits of bodily awareness. On a “template” model of touch, it is no accident that tactual perception and bodily sensation coincide, for the two are interdependent: one comes to be aware of the objects of touch through being aware of the properties of one’s body and how the two interact. The most basic form of this is the sharing of spatial properties when boundaries of an object and one’s body coincide.\(^\text{14}\)

Two qualifications need to be added. First, while the simplest such model of a sense of one’s body would assume that one’s body has one complete boundary within which only parts of one’s body are located, no such assumption need be made. We have boundaries falling within other boundaries, and many of our boundaries are not closed. In one sense, an object pressing against the sides of one’s esophagus falls within one’s boundaries—the place where the object is located falls within the limits of one’s skin. At the same time, a fish bone pressing against the walls of the esophagus is felt to be pressing against one of one’s boundaries, as lying outside of the boundary of the esophagus walls. Corresponding to the fish bone, one feels sensation at and beneath those walls that feel to lie within one of one’s boundaries. A more exact account of the distinction between being felt to be inside or outside is to say that when a tactual object is in contact with one of one’s boundaries, one thereby has not only tactual awareness of the object but also bodily sensation at that surface. The bodily sensation has the character of being within one of one’s boundaries, and hence the feeling of being internal. The tactual object is thereby felt to be beyond that particular bodily boundary, and hence to be outside of the body. While the location where the fish bone is felt is in fact a location within the body, and a location that falls within what are felt to be the outer boundaries of the body, one’s skin, it is not positively felt to fall within those boundaries, and hence is not thereby felt to fall within one’s body.

Second, I have offered no account of what it is for the location of a sensation to fall within a reidentifiable or nameable body part, as when the location of a pain is in one’s left hand, rather than just in some body part or other at a given position. The fact that locations of sensation are often
in nameable parts requires a further complication of the account. It surely seems sufficient that a sensation should feel to be located within the body if it feels to be located within a nameable body part. But this addition does not really alter the main claim. For one can ask what it is for a felt body part to feel as if it is part of one's body. For this too there is the analogous problem that there seems to be no case of feeling a body part to belong to someone else's body. The same form of answer can be applied in this case: that a body part feels to belong to one's body is not independent of the fact that one feels it to be a specific body part. A contrast will remain between parts of my body and other objects in the world if the part is felt to be located within a space that could contain other objects.

This account of the sense of ownership explains how our bodily experiences can have as part of their phenomenological content that the region felt falls within one's body. Furthermore, it explains how all bodily sensation of a determinate location will possess this quality. The mysterious necessity of sensation falling within the apparent body is easily explained: it simply derives from the spatial content that sensations have. Given that bodily sensation has this content, all spatially located sensations will feel as if they fall within the body. This is not to claim that there could not be other ways in which bodily sensation could have been, nor that there could not have been other kinds of phenomenological features that indicate what is within the body. The account here thus starts from the evident but contingent fact that our bodily sensations have a certain character. The account explains what it is for our sensations to have the character they do, and hence explains the Cartesian phenomenological observation that we are aware of our bodies "from the inside."16

2 The Sole Object of Awareness

In the last section I claimed that part of the phenomenological character of sensations is that one feels events as occurring not only within body parts, but also within body parts that belong to one's own body, and I argued that we can make sense of this claim in terms of the structure of the spatial content of sensation. I now want to turn to the bearing this has on the question of what objects one can come to be aware of through sensation. Bodily sensations, together with kinesthesia, proprioception, and the vestibular sense, amount to an awareness of one's body that is only of one's own body and its parts. Call this the sole-object view.17

The sole-object view is not the only account of bodily awareness. I have already noted that there is a long tradition in philosophy of denying that sensation is perceptual awareness of one's body. Even if one grants that
sensation does give one an awareness of body parts, one might claim that it is a merely contingent matter that one comes to be aware only of one's own body parts in this way and that it is quite conceivable that one could come to be aware of parts of others’ bodies in the same way. Call this the multiple-object view. I call this view thus not because it need claim that we are actually aware of more than our own bodies through sensation and kinesthesia but because it claims that it is consistent with the form of awareness we have that more than one body could be presented to a perceiver in this way. Just because everything one feels is felt to be part of one’s body, this doesn’t yet show that everything one feels must be a part of one’s body. So the observations of the last section do not appear to decide between the two views. Here I will argue that on examination those observations do in fact support the sole-object view.

Wittgenstein seems to have been a proponent of the multiple-object view. He thought it quite conceivable that one should feel pain in someone else’s tooth, in a piece of furniture, or in empty space.\(^\text{18}\) However, it is doubtful that Wittgenstein rejects the traditional view of sensation as purely subjective. For example, according to him, the location of sensation in one’s hand amounts to no more than one’s being disposed to point to that place and say that the ache is located there. And when we draw out the consequences of a perceptual account of sensation, it turns out that Wittgenstein’s own examples are best described in terms of the sole-object view.

Wittgenstein rightly claims that one can easily conceive of a case in which it feels to one as if there is pain in one’s left hand and one indicates one’s neighbor’s hand when asked where it hurts. When we assume that one’s neighbor’s hand is not also a part of one’s own body, the sole-object view must count this as a case of illusion or hallucination. The perceptual account of sensation already gives us reason to endorse this description of the case. Consider again phantom-limb sensation. When an amputee feels a pain three inches below her knee, that location may well fall outside the actual limits of her body. Prima facie, this is a case of being aware of a point outside of one’s actual body, even though for the sufferer, it is still a case of being aware of a location as falling within the apparent limits of her body. However, anyone who wishes to adopt a perceptual view of bodily sensation—even if they reject the sole-object thesis—has reason to reject this description of phantom-limb sensation. In having a pain, a sufferer is aware of a part of some body as being some way.\(^\text{19}\) In the case of referred pain, the experience is illusory to the extent that it feels to the sufferer as if one part of her body is hurt when in fact another part is. In a phantom-limb sensation, the sufferer feels as if a part of her body is hurt

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that in fact no longer exists. This is akin to cases of perceptual hallucination, as when someone suffering delirium tremens "sees" a pink rat. In this case we should not say that this subject is aware of some object, for there is nothing there. Rather, she is having a visual experience as of a pink rat but is not perceiving anything. So in the phantom-limb example, for the sufferer, it is as if a part of her left leg is damaged but in fact no such part exists, and she is aware of nothing at all but is merely having a hallucination.

Likewise, the Wittgenstein example involves an element of illusion and can be explained without supposing that the subject is positively aware of his neighbor's hand. From the description that Wittgenstein offers, it is at least as natural to suppose that the subject is aware of a hand—not his neighbor's but rather his own left hand. The illusory element in the experience is simply that it feels to him as if his hand is at a location where his hand happens not to be, although coincidentally his neighbor's hand is. The case is one in which the sensation does appear to be located in a part of the subject's own body, and we have been given no reason to suppose that he is wrong about this fact rather than about the location of the body part.

The sole-object view need not claim that the apparent locations of pain and other bodily qualities must be restricted to the actual bounds of one's body. There are plenty of actual counterexamples to this thesis without having to consider the fiction Wittgenstein presents us with. The claim is merely that such experiences can only be genuinely perceptual and count as the awareness of some body part, rather than as a case of illusion or hallucination, if the body part in question is actually part of one's own body. Once we take bodily sensation to be a form of perception, we can see that Wittgenstein's fiction concerns an illusory or hallucinatory experience, and hence offers no challenge to the sole-object view.

However, Wittgenstein's story can be supplemented so as to present more of a challenge. We might suppose that the neighbor's hand has a radiotransmitter attached that is sensitive to activity in nerves associated with pain, pressure, and movement. The sufferer, in turn, has an attached receiver that stimulates him so as to have a corresponding painful sensation when any damage occurs in his neighbor's hand. To avoid any trace of illusion, we must suppose that this new area of pain does not feel to the sufferer as if it is within his own left hand. Rather, it must feel as if it is in some new part of his body, as if he had grown a new hand. We may suppose that the sufferer is able to report both the location and the status of the neighbor's hand in virtue of the sensations produced by the transmitter-receiver when the neighbor is nearby.
Now, it may be argued that the transmitter-receiver acts as a form of prosthetic nervous system: imagine someone having parts of his internal nervous system replaced by such an electronic device; the current fiction merely asks us to extend this to someone else's body. The transmitter is to be thought of as extending the range of bodily sensation in the manner that spectacles and binoculars do for vision. The sensation is no longer fortuitously associated with the other body, and hence is no longer so obviously to be treated as a case of illusion.

This gives the multiple-object account a stronger case. How should one respond? As with the earlier example, it is open to the sole-object view to redescribe the situation as one of illusion: rather than treat the transmitter as a prosthetic extension of the nervous system, this view will claim that it is nothing more than a sophisticated mechanism for causing pains in two people instead of one. Although the damage to the neighbor's hand is a cause of the subject's sensation, the view will deny that it thereby comes to be an object of perception. This claim is coherent—many things can cause sensory experience without thereby being the objects of those experiences: the alcoholic does not see the alcohol earlier imbibed when he has a hallucination of a pink rat caused by that drink—but the claim that the sensation is purely illusory does not follow from the thesis that bodily sensations are perceptions. So why should the sole-object view be justified in insisting on this redescription?

We need to examine more closely the model of perception that underlies the plausibility of this apparent counterexample and any justification the sole-object view can provide for rejecting this model in the case of bodily awareness. The existence of a reliable causal link that can support the transmission of information often seems to be a prerequisite for genuine perception. In the example, just such a link is established between body parts and the subject's experience of them. This undermines at least one explanation of why we should treat the case as an illusion, as the sole-object view dictates. But for the example finally to convince, the materials it supplies must be sufficient for perception, and this involves two assumptions: that in the case of bodily awareness the objects of perception are body-parts and that the kind of causal and informational link set up in the example is sufficient to establish a perceptual link between that object and the subject's experience of it.

This mirrors a certain view of visual perception. One might think that the role of light in vision is to act as a causal route for the transmission of information about the objects of perception to the perceiver, who then has visual experiences of those objects. Which objects one can come to see would then be limited by the distance over which light can still reliably transmit information. And certain locations and certain objects are visible to the eyes: we do not see in our binoculars everything around them. In that more familiar case, the nervous system takes over the role of perception being overlaid by visual images.

The sole-object view can appeal to this model of perception, discuss the causal link, and argue that the causal explanation is independent of perception. But it will be difficult to make this argument for bodily awareness. In the alleged example, the damage to the neighbor's hand, say, belongs to a certain causal chain of events. But if that damage belongs to a causal chain that includes the subject's experience of a visual image, then it is difficult to say that the causal explanation is independent of, or overlaid by, the subject's experience of the visual image. And even if the damage did not belong to such a causal chain, it is not clear that the damage could not be causally related to the subject's experience of the visual image. In other words, it is not clear that the causal explanation of the subject's experience of the visual image is independent of the causal explanation of the damage to the neighbor's hand. The sole-object view cannot make this argument for bodily awareness. Therefore, it cannot use the model of perception to justify its claim that the sole-object view is sufficient for perception.
transmit information from objects to us, which turns mainly on the degree of resolution that our eyes can achieve. The latter is a contingent matter, and certain prosthetic devices can be employed to extend the range of one's eyes: we do not tend to think that the use of spectacles, or even the use of binoculars or telescopes, prevents us from genuinely seeing objects through them. In the case of bodily awareness, one's nervous system plays an analogous role to the medium of light. It is a contingent matter that one's nervous system stops at the skin, and we can imagine this contingent limitation being overcome by such prosthetic devices as the radio transmitter.

The sole-object view needs to reject this picture of bodily awareness. It must deny that the existence of a causal/informational link between body parts and perceiver suffices for her perception of those parts. For it claims that a necessary condition for perceiving a body part will be that the part in question is part of the subject's body. On this view, the primary object of bodily awareness is one's body as a whole, so one perceives its parts only because they are parts of that object. Given this, no matter how sophisticated and reliable the transmitting link is between body part and the subject's bodily sensation, the sensation will not count as perception of that body part if it does not belong to her body but will rather be illusory or hallucinatory.

Why prefer one picture over the other? This is where the sole-object view can appeal to the phenomenological characteristics of bodily sensation, discussed above. On the opposing view, perception of the body is a matter of perceiving those body parts with which one has an informational link. That the body parts belong to one body is determined separately from whether the body parts are perceived. Located sensations have the phenomenological feature that the place that one feels to be hurt feels to one to fall within the bounds of one's body. I argued that this sense of ownership, in being possessed by all located sensations, cannot be independent of the spatial content of the sensation, the location of the event. In the alleged counterexample, when the subject feels pain in virtue of damage to the neighbor's hand, it feels to the subject as if the body part belongs to her body, even though it does not. In this respect, bodily experiences of parts of other people's bodies will be illusory.

This gives rise to a further problem. While the sense of ownership is veridical in the usual case, since one happens to feel sensations only within body parts that belong to one's own body, it is a mere accident that this is so: all located sensations possess this feature regardless of whether the locations in question do fall within the subject's body. So there is no reliable mechanism that associates the phenomenological feature, the sense of ownership, with any objective facts concerning actual ownership of the
body part. Although phenomenologically it appears to the sufferer as if the body part has a certain property, that of being a part of his body, there is no perceptual connection between the body part seeming so and its actually being so, since perceiving something to have a property depends on there being a reliable link.

There is no problem here for the sole-object view. According to this view, bodily awareness is primarily awareness of one’s physical body, and awareness of body parts only in as much as they are parts of that body. Consequently, for any bodily sensation that is genuinely perceptual, the body part in question will be a part of one’s body, as it appears to be. Since it is in the nature of bodily experience to be experience of one’s body, there need be no further mechanism to track which body it is to which a body part belongs. This is just a corollary of a point made in the last section: that we should think of apparent ownership not as being a quality additional to the other qualities of experience but as somehow already inherent within them.

So the sole-object view can justify its description of the apparent counterexample by appeal to general considerations about what it is for sensations to be perceptions of the body. On the opposing multiple-object view, the phenomenological feature of the experience that the body part appears to belong to the subject’s body cannot be a genuinely perceived feature of a body part. In contrast, the sole-object view can respect the appearance that this is a genuinely perceived property of the body part. When we acknowledge the distinctive phenomenology that we are aware of events within the body “from the inside,” we are led to the conclusion that if this is a form of perceptual awareness, it is awareness of one object only. This is not to claim that it is impossible to feel sensations to be located in regions that fall outside of the actual limits of the body, but it is to deny that such experiences can then amount to genuine perceptual awareness of whatever is located in those places.

3 Bodily Awareness and Self-Awareness

In the last two sections I have claimed first that, with respect to the phenomenological content of bodily sensation and kinesthesia, body parts are presented as belonging to the perceiver’s body and second that a subject, in having such experiences, comes to perceive only one object, his or her body. The apparent counterexamples were explained away as cases of illusion or hallucination, where the subject either misperceives the location of a body part of which she is aware or hallucinates a nonexistent body part. These properties of bodily awareness are reminiscent of features that have...
sometimes been attributed to self-awareness or introspection (see Frege's comment that "everyone is presented to himself in a special and primitive way, in which he is presented to no-one else").

Hume famously denied that any of us is acquainted with his or her self. Some philosophers following him in this have justified the claim through repudiating a perceptual account of introspection. The principal objection here turns on the thought that were introspection a form of perception, then necessarily it would take only one object, one's self. But, it is sometimes claimed, one can only have genuine perception of objects where one perceives one object among many. If this is true, then either introspection is not the perception of an object, or it is not perception. A correlative objection is that perception could only be of one object, as introspection would have to be, only if the mechanism of perception were in some way magical. Any such arguments against treating introspection as a form of perception would apply equally well against treating bodily awareness as a form of perception that takes one's body as its sole object. I need to defend both the claim that perception can be of something as an object, even when only one object is given, and the claim that perception can latch onto just that one object without requiring a magical mechanism.

We can find the first line of objection to taking introspection to be a form of perception in the work of Sydney Shoemaker. He suggests that "a mode of perception must be such that someone's perceiving something in that way can enter into the explanation of how it is that the person has knowledge of that thing, where part of the explanation is that perceiving the thing provides the person with identification information about it." Shoemaker claims that introspection cannot meet this condition, since no manifold of objects is presented, and hence introspection is not perception. If this objection is a good one, it tells not only against a perceptual account of introspection, but also against any perceptual account of bodily awareness that acknowledges the phenomenological sense of ownership and the sole-object view. My discussion already provides us with sufficient resources to rebut this worry.

For vision, we can distinguish the subject's point of view on the objects of perception from the locations of the various objects of perception, all of which will be perceived to stand in various spatial relations to that origin, as well as to each other. Any visual object of perception will be presented as an object in as much as it is presented as occupying a space adjacent to other objects, all of which are on a par. The structure of the spatial content of bodily awareness is different. There is no distinct point of view that the subject possesses independent of the object, his or her body, that she is aware of in this way. But it does not follow from this that the body
cannot be presented in bodily experience as a genuine object. Recall that
the subject's body parts are presented as located within a space not all of
which the subject can be aware of at the time. It is through this that the
subject has a sense of her own boundedness, and hence a sense of herself as
a spatial object within a larger world. Although the subject does not have
to single out or identify her body as one object among the many presented
to her in experience, she does nevertheless have a sense of it as just one
object, among the many that there may be within that space.

This leads to the second objection. What singles out just one object,
among all those in the world that one could be perceiving, as the sole-
object of this kind of awareness? Doesn't this require some kind of mag-
ical mechanism? 

As with the first claim, we mustn't be misled by what is true of other
sense modalities. In vision, a distinction needs to be drawn between the
ability to perceive an object and the ability to single it out from among the
others perceived, or to keep track of it, since a multiplicity of objects may
be presented to the perceiver at a time. If one construes bodily awareness
as a single-object modality along the same lines, it may seem as if both fea-
tures—that of presenting an object and that of tracking an object—have to
be combined. But in the case of visual attention, it is clear that tracking
can break down: the object picked out at one point may be mislaid at the
next, and another mistaken for it. This may make it seem that any perceptu-
ability that involves tracking an object might break down in this way.
Hence, the existence of a perceptual ability that cannot so break down is
liable to appear magical. But it is simply wrong to think of the way in
which one object is singled out in bodily awareness in these terms. That
bodily awareness succeeds in latching onto one object results not so much
from a superabundance to track one object as the inability to experience more
than one object, or the parts of more than one object, in this way. That the
body, in addition to its parts, is experienced through bodily awareness is
simply a function of the spatial content of such experience. But no more
than one object could be presented in this way.

Nevertheless, the question remains of what makes one particular object
the object of bodily awareness. The structure of such experience is that if any
object is picked out, there will be just one such object. But this does not yet
say which object is picked out in this way. In the argument of the last section
I implicitly assumed that the object one perceives through bodily sensation is
one's own body and that body parts appear to one to belong to that body.
But this claim does not follow from any of the claims made in my earlier
discussion of the phenomenology of bodily experience. Undoubtedly, it is
natural to assume that if there is a sole-object of bodily experience, the best
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candidate as the object of perception is one's own body. But there are other
candidates: Consider the entity consisting of a subject's physical body minus
those parts of her body in which she has lost the power of movement and
sensation. Conversely, take the candidate to be the subject's physical body
plus any prosthetic limbs and devices over which he has immediate, and not
merely instrumentally mediated, control. A further entity is the sum of the
body parts causally responsible for the sensations that the subject has at a
time. This would include the neighbor's hand and any other body part that
the subject might also appear to feel. This is importantly different from the
other candidates. For the others, one can specify each part of that object
without first determining whether the subject feels any sensation in that
part. In the last case, whether or not a body part belongs to the entity in
question is determined solely by whether the subject has a sensation for
which the body part is responsible. For this entity, sensation apparently in a
body part makes the body part part of the entity rather than being a way of
perceiving that part as belonging to the entity.

While one might rule out certain candidates by denying them the status of being genuine "natural" objects of the sort that may count as the
primary objects of perception, this would not answer the problems raised
by the last candidate. For in this case we need not read the challenge as
claiming that the candidate entity is perceived through bodily sensation,
since the entity is constituted by one's having sensation in its parts, rather
than by existing independently of perception and then being alighted on.
The challenge is rather to show that this sense of ownership reflects facts
about a genuine object in the world, rather than a mere phenomenal
construction: an entity whose existence depends solely on one's experience of
it, having no independent place in the natural world.

To meet this challenge, we have to give some reason for supposing that
some object, given independently of our awareness of it, is the object that
bodily experience is about and that bodily experience is about some such
entity. One answer is to look for a function of bodily awareness and then to
show that this function determines which object is the object perceived. For
instance, following a suggestion by Brian O'Shaughnessy, one might claim
that conscious bodily awareness plays a central role in controlling and deter-
mining intentional action. Given this, the object of bodily awareness would
need to be the object with which one most immediately acts. This object, it
may be argued, is one's physical body. Since the question of whether one can
act with an object or not is fixed independently of whether one has sensation
in the object, the awareness in question can be counted as genuinely percept-
tual, and we have a criterion to deeming the feeling of pain in a neighbor's
hand to be illusory.
However, it is not yet clear whether this line of reasoning will succeed. One question about it is whether a clear function can be ascribed to any form of conscious experience. And in the particular case of action control, there is a genuine question of whether successful action requires continuous monitoring of the body. So the explanation above might actually turn out to be a hostage to fortune, depending on the correct empirical account of visuomotor control. An alternative would be to avoid looking for a direct functional role for conscious experience itself and instead look at the explanations of what underlies the content that such experience has. Even if conscious experience of the body is not involved in the coordination of all action, there is reason to think that there are unconscious representations of the body, body schemata, to control at least some action. Furthermore, it is plausible to suppose that such representations are drawn on in determining the content of conscious kinesthesia and hence bodily sensation. One might think of such unconscious representations (themselves posited at a subpersonal level of processing) as in part determining the extent of the object with which an agent can immediately act, since their function is to control this object. This in turn may be taken to be the object of current conscious awareness through kinesthesia and sensation, and its limits will then determine whether such awareness is illusory or veridical.

Note that both of these justifications leave open whether the object of awareness is itself identical with the subject's physical body. In either case one might suppose that permanent loss of use of a body part might lead to its separation from the object with which an agent immediately acts, and hence exclude that body part from genuine awareness. Correspondingly, familiarity with an artificial limb may lead to its inclusion in the elements with which a subject can immediately act, and hence include it as something in which the subject can have genuine awareness.

There is no space here to develop either proposal. For my purposes, the important point is just to note that such an account is required to underwrite the claim that bodily awareness is genuine awareness of one's body, and also to indicate that there is no particular reason to suppose that some such account cannot be given. However, the fact that such an account does need to be given points to a significant disanalogy between bodily awareness and introspection, at least as it has commonly been conceived by philosophers.

While it is plausible to suppose that the object of bodily awareness might coincide with various psychological conceptions of the concept of self, such as the Gibsonian notion of the ecological self, among philosophers, self-consciousness and the concept of the first-person, or self, have
had a more restricted range of application. Two conditions are often imposed: First, a guaranteed reference. When the subject thinks about herself in the first person, she must be guaranteed to be referring to herself—a tie between the agent of thought and the object thought about. Second, since the guarantee seems to be part of the concept of the first person, when the subject employs the first person concept, it is a priori that she will be thinking about herself.

If self-consciousness is tied to this concept of self, then a given mental episode—thought or experience—will be an exercise of self-consciousness only where the object of that episode is guaranteed to be the self and where the object is presented to the subject as herself. Otherwise, in having this thought or experience, the subject should be able to wonder whether this object of which she is thinking or having an experience is genuinely herself. So a perceptual account of introspection would need not only to explain how only one object can be experienced by the subject in this way but also to show how the object being so experienced by the subject must be experienced by the subject as herself.

It is implausible to claim that this condition is met in the case of bodily awareness, even if it could be met elsewhere. If the arguments of this paper are correct, we should conceive of bodily awareness as a form of perception of a single object. If a thinker thinks about whatever she is aware of through bodily awareness, she is guaranteed to be thinking solely of one object. However, which object bodily awareness presents is not determined solely by phenomenological considerations. Rather, some account needs to be given of what ties the content of bodily awareness to a particular object. This further account does not seem to be one that we can provide purely a priori.

A Cartesian dualist is, of course, unlikely to accept that bodily awareness is a form of introspection, for he will insist that body and self are distinct entities, and hence that awareness of the body is not awareness of the self. But one might reason that showing that bodily awareness is a form of introspection would then form an argument against Cartesian dualism. My concerns here are pressing even if we grant that we are material, living animals and not immaterial egos.

It is not unnatural to describe the sense of ownership associated with body parts as the sense of being aware that the left hand one feels is one's own left hand, that it belongs to oneself. In being aware of one's body, one will be aware of its parts as parts of oneself. It is this thought that an introspective model of bodily awareness will stress. In the account offered here, body parts appear to belong to a particular body, one's own body. There is no need to cash out the claim that the body is one's own by supposing that
bodily awareness also involves some further exercise of introspection. For there is no other object presented to one in the way that one’s body and its parts are presented, so one’s body can be picked out simply as that object so presented when attending to it through bodily awareness.

Now if we are not Cartesians, there is little inclination to distinguish between this object and oneself. But to grant this is not yet to grant that the object in question is presented as oneself, or that its parts are presented as belonging to oneself. It is this further claim that we should reject. As we have seen, a substantive account needs to be given of which object is the object of bodily awareness, an account that turns either on the function of such awareness or possibly on the unconscious representations (together with their function) that such awareness depends on. On such an account, it seems possible that the object in question may turn out to be distinct from what is strictly one’s physical body, for two objects can be identical only if they share all and only the same parts. If the primary object of perception is the object with which one most immediately acts rather than one’s physical body, then it is arguable that this entity may include artificial limbs and other prosthetic devices if these elements themselves come to be represented within the body schema. In such a case the physical organism and the immediate object of agency will be distinct, since the latter includes parts that the former doesn’t. Inasmuch as a body part feels like it belongs to the body that one is aware of through bodily sensation, it will feel like it belongs to the object of agency rather than to one’s physical body. So if one is identical with one’s physical body, one will still not be aware of it through bodily sensation but rather will be aware only of the object of agency. Of course, the claim that the physical body and the object of agency can come apart is itself speculative. But for the point being made, no more than speculation is required. If it is at least open to the subject to wonder whether the object that she is presented in bodily sensation is not herself but rather only an object closely associated with herself, then that object cannot be presented to her as being the self, and hence bodily awareness cannot be a form of introspection.

One might reply that it is no less an issue which object the self is to be identified with. Perhaps the self should be identified not strictly with the physical organism but rather with the immediate object of agency. Then the prosthetic limb would be no less a part of the self than would her flesh and blood. In this case the debate about the object of bodily awareness and the debate about which object the self is would coincide, which would leave bodily awareness as a form of being aware of the self. But even this would not be enough to meet the conditions needed to show that it is a case of introspection to establish being oneself. But there would be a case of introspection of oneself, at least for oneself, should the following prove to be the case: that it is possible to understand bodily awareness as the awareness of oneself without any reason.

To sum up, although there is introspection and the possibility of a case of introspection of oneself, there is no reason for holding that bodily awareness is sufficiently introspective.

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Notes


6. However, see also Heal, Response and Suggestion, op. cit.
to show that bodily awareness is self-awareness. Rather, what one needs to establish is that they coincide a priori. Only then would it turn out to be a confusion to wonder whether the object of bodily awareness is oneself rather than an issue to be settled by empirical study. This might follow if our concept of the self was so grounded in bodily awareness that it made no sense to wonder whether the object present in bodily awareness, whatever it might be, must be oneself. But there seems to be no reason to endorse this claim.

To deny that bodily awareness is self-awareness is not to dispute that there is a close connection between the sense we have of our own bodies and the concept we have of ourselves and that the connection warrants more extended discussion. But what I hope I have shown is that bodily awareness is sufficiently worthy of discussion in itself and its character sufficiently distinctive without having to assimilate it to introspection.

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Notes


2. However, where people share bodies, as do Siamese twins, each may be aware of those parts of the other’s body that are also parts of their own.


6. However, I don’t wish to take issue with claims made by P. Wall in “Pain and Placebo Response,” Experimental and Theoretical Studies of Consciousness (Chichester: John Wiley and Son, 1993), pp. 187–211. He contrasts pain, and bodily sensation in general, with external perception, through being more susceptible to psychological influence and not always requiring peripheral stimuli to determine location of experience. These considerations do not support readopting a subjective account of sensation, being more a matter of degree than kind.

8. However, one who appears to deny that it can, while rejecting the traditional subjectivist view of sensation, is Merleau-Ponty. See The Phenomenology of Perception, trans. C. Smith (London: Routledge, 1962).


10. Not all bodily sensations need possess a felt location. No claims that I make here concerning the sense of ownership should be thought to apply to sensations that lack a felt location.


12. There appear to be empirical counterexamples. See, for example, G. von Békésy's example of extrasomatic sensation in Sensory Inhibition (Princeton: Princeton University Press, 1967), pp. 220–226, and M. F. Shapiro et al., "Exosomesthesia, or Displacement of Cutaneous Sensation into Extrapersonal Space," AMA Archives of Neurology and Psychiatry 68 (1952): 481–490. Close examination of both cases suggests that it is far from clear that this is so, but proper discussion of these must here be postponed.


15. This does not, of course, apply to the case of unlocated sensations.

16. However, it is no part of the claim here that there are no other qualities of sensations that may correspond to what is felt to appear to belong to me or my body. My claim is only that the sense of ownership, as here outlined, is at least present in all such sensation and is more fundamental to explaining the phenomenology of bodily experience than any other such quality.


19. Whether a pain experience represents a body part as disordered by representing it as hurt or whether we must conceive of hurt and disorder as distinctly perceived properties is a nice question. For a discussion that bears on this, see Ayers, Locke, and Peacocke, "Consciousness and Other Minds."

other object does not rule out the possibility that another may be aware of my body in the same way, if, for example, two people could share one body.


22. Shoemaker himself does not present his objection as a decisive one, relying instead on the claim that since perceptual acquaintance with the self can’t explain all cases of self-awareness, the appeal to such acquaintance is superfluous to the explanation of our possession of self-consciousness.

23. Dominic Murphy pointed out to me that this is reflected in our abilities to imagine situations experientially. When we visualize, we need not place ourselves within a situation (one can be a “fly on the wall”), but in kinesthetic imagining, there is no room to distinguish between the point of view imagined and the object so imagined.


25. This account does not rule out the possibility that different bodies could be presented at different times, as long as only one is present at a time. Some might claim that this would point to a disanalogy with self-awareness, since self-awareness may be held to require awareness of oneself over time. My arguments here will not trade on any such alleged difference.


29. So it is consistent with this view that the object of bodily awareness might consist of discrete parts that are distinct “natural” objects in their own right.


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