

# INTROSPECTION AND BODILY AWARENESS

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## 27.1 Introduction

My good friend Sally reaches for a mug of tea and takes a sip. She doesn't need to look for her hand in order to do so, because she is proprioceptively aware of its position through a subtle pattern of skin stretch, muscular effort, and tension, an awareness that persists as it traverses the space from desk to face. Contact with the mug yields sensations of pressure, texture, and temperature in her fingertips, tongue, and lips. Simultaneously, she is aware of the pressure of the chair against her back and seat, and she is able, through her vestibular sense, to make subtle adjustments in posture, maintaining her balance as her center of gravity changes. As she sips the tea (a little too hot), she is distracted from the slight pain of a burn on the tongue by a diffuse interoceptive feeling of warmth and satiation emanating from within her chest.

These are some of the ways in which Sally is aware of her body—some of the many forms her bodily awareness takes—each of which, I should imagine, is familiar to you from similarly mundane acts you have performed. Each of these forms is grounded in information channels disclosing bodily properties, much as vision discloses the properties of visible objects, such that Sally is aware of movement, changes in pressure, and sensations of pain and warmth. If you ask her, she thinks it a little obvious to say that, in so being aware, she is perceiving the properties of a part of the world: a human body and its parts.

But it is not just any body she is aware of in this way. It is the body which, to paraphrase Descartes, by some special right she calls “mine” (Descartes 1641/1984). Indeed, as far as Sally is concerned, this body is not just *hers*, *it is her*; when she is aware of properties of her body, she is aware of properties of herself. She is aware of herself as changing position, maintaining posture while lifting the mug; she feels the mug's surface as pressing against her; she is in pain and feels herself being warmed and satiated as a consequence of imbibing its contents. Although she shares some philosophers' suspicions that the notion of body ownership can be deployed as a means of distinguishing the subject and her body (Olson 2006; Madden 2023), she still finds the term perfectly serviceable. After all, there is an impersonal way of thinking about the body that she is—it is one body amongst others. Under that guise, one might employ the notion of ownership as a means of singling out the body

that you are—of all the bodies in the world, there is just one that is yours, and that body is you. With less of an air of contradiction, one can certainly employ the notion of body ownership to talk of parts of oneself that one has in common with other bodies. Sally has a hand, as do you. It is not in any way incoherent to express this perfectly ordinary fact in this way: to say that Sally's hand is a part of her.

So, if what she thinks about the matter is correct, then when Sally reports on the basis of her bodily awareness that her lips were pressed, her tongue was burnt, and her chest was warmed, she is reporting her introspective awareness of various properties of herself in virtue of perceiving her body. This entry will survey a variety of philosophical views according to which she must be mistaken, and show how Sally might muster a viable defense of her common-sense views.

## 27.2 Immunity to Error

The basic defense of bodily awareness as a form of introspection starts from the observation that it has the hallmark features of introspection (Bermúdez 1998). In particular, bodily awareness can serve as grounds for judgments that have the distinctive epistemic feature of being immune to error through misidentification relative to the first-person pronoun (Evans 1982).<sup>1</sup> An error through misidentification relative to the first-person pronoun occurs when a subject judges on certain grounds that something is a certain way but goes wrong only in judging that the thing that they know to be that way is herself. Thus, a judgment is *immune* to error through misidentification relative to the first-person pronoun (hereafter IEM) when a subject cannot make an error of this kind on these grounds (Shoemaker 1968).

Sally concurs. It seems to her absurd to ask, “Is it *your* arm moving?” when she judges that her arm is moving on the grounds that she is proprioceptively aware of an arm moving. Of course, if she were making the judgment on other grounds—say if she were watching an arm moving on a CCTV feed—then that question would be perfectly sensible. For in that situation the grounds on which she was making the judgment would be open to error concerning the identity of the subject to whom the bodily property should be attributed. In such a case, she might, upon judging that someone's arm is moving, go on to identify that someone as herself, and perhaps mistakenly so. But her bodily awareness does not involve such a process of identification. It does not leave open in this way the identity of the subject to whom the bodily property should be attributed. And the same applies, it would seem, to the other forms of bodily awareness exhibited in her tea-sipping episode. It would be just as absurd to ask, “Is it *your* tongue that is burning?”, “Are *your* lips being pressed?”, “Is *your* chest being warmed?” when she judges the corresponding propositions on the grounds of her bodily awareness. For how could she be aware of anything else than her own body in this way?

Perhaps you have seen or read enough science fiction to think of a scenario in which Sally *could* be aware of something else than her body in just this way. Imagine that Sally's nervous system was causally connected to someone else's (perhaps they are both wearing a device like the SQUID in Kathryn Bigelow's 1995 movie *Strange Days*), such that, when the other person took a sip of tea, it would cause Sally to have an experience exactly like the experience she would have if she were aware of her own body. In such a situation, couldn't Sally judge that *someone's* arm was moving on the grounds of being aware of an arm moving in this way, but do so in a way that leaves open the question of whose arm is moving?

Philosophers have been impressed by such scenarios, typically called “cross-wire cases”, as motivating a contrast between mental self-ascriptions (such as *being aware* of her arm moving) and bodily self-ascriptions (such as *her arm moving*). The thought is roughly this: if in such a situation Sally were to judge “I am aware of an arm moving”, on the grounds of being aware of an arm moving, she would be, “tautologically, aware, not simply that the attribute [being aware] is instantiated, but that it is instantiated in [her]self” (Shoemaker 1968, 563–564). Thus, present-tense self-ascriptions of mental properties of this kind are described as logically (or absolutely) immune to error, for the grounds on which one self-ascribes them suffice to ensure that there are no possible circumstances in which one can misidentify their subject. But, the thought continues, cross-wire cases show that there are possible grounds in which the self-ascription of bodily properties is liable to this sort of error. This is because her self-ascription of the bodily property is on the grounds of what Evans (1982) called an “information link”, supplied by her proprioceptive system. This information link is *de facto* reliable, i.e., reliable in normal circumstances, as it has a proprietary causal connection to her body by means of which she is able to track states and processes within her body. But in the unusual circumstance of a cross-wire case, in which her proprioceptive system is causally influenced by another’s body, the information link is no longer proprietary. Thus, self-ascription of bodily properties is often described as *de facto* IEM, but not logically IEM (Bermúdez 1998; Coliva 2012; de Vignemont 2012; O’Brien 2007).

As much as this may be philosophical orthodoxy, Sally remains unconvinced. She suspects that the force of crossed-wire cases is being overestimated. Firstly, she suspects that in such a situation, to judge that someone’s arm is moving would be, as Evans puts it, “a wild shot in the dark” (Evans 1982, 221). In such a situation, her grounds are so abnormal that she is hardly in a position to ascribe bodily properties to anyone!

Secondly, she notes that what we are to imagine is a scenario in which she would be aware of an arm’s movement through a form of awareness that presents multiple bodies in just the same way. But why think that this form of awareness is bodily awareness as she ordinarily enjoys it? Why assume that bodily awareness is such that multiple bodies could be presented in just the same way? Sally notes that it is plausible that bodily awareness is a form of awareness that is only of a single object, her own body. This, she takes it, would not be a peculiarity of her case, but a general fact about bodily awareness—that it is such that it presents only the subject’s own body (Martin 1995). Call this, following Martin (1995), the **sole object view** of bodily awareness. If the **sole object view** is right, then it is logically impossible for Sally to be aware of someone else’s body by means of bodily awareness. If cross-wire cases are conceivable, all it shows is that it is conceivable that there is a form of awareness that might present multiple bodies. It would require further argument to show that this form of awareness is of the same kind as the bodily awareness she enjoyed in her (ordinary) tea-sipping episode. It would require further argument to show that the grounds for her bodily self-ascriptions are the same in each case.

Thirdly, Sally is perhaps shrewder than most in her inspection of imaginative projects such as these. For she notes (following Salje 2017) that a cross-wire setup is compatible with two sorts of possibility, neither of which would make her liable to error through misidentification. One possibility is that the cross-wire mechanism provides a means of being aware of another’s body in ways that would be *different* from your awareness of your own body. This might be some form of awareness that would present multiple bodies in the same way—in which case, see above—or perhaps it would be some form of awareness that

presented another's body in some distinctive way—in which case, she would not be liable to error. Alternatively, it might be a mechanism that generates a hallucination of her own body by unusual means. That is to say, when the other chap takes a sip of tea, Sally hallucinates that her arm is moving, her lips are being pressed, *etc.* Certainly, the other person's body would be the cause of her hallucination, but it would not thereby be the object of her hallucination (Martin 1995). Here Sally thinks a comparison to other cases of hallucination might be helpful, like that time she saw a Jaguar after drinking a cupful of ayahuasca. Just as, in that situation, if she was aware of anything, the object of her awareness was not the thing that caused her hallucination, i.e., the brew she drank, so in the cross-wire case, the object of her awareness is not the other body to which she is (unusually) causally connected.

### 27.3 Introspection and (Bodily) Perception

Say, then, it is agreed that bodily awareness meets the hallmark condition of being IEM. According to one influential line of thought due to Sydney Shoemaker, it is implausible that it meets this condition in virtue of being a form of perception. Here are two characteristic features of “ordinary” sense perception that form part of a “stereotype” of sense perception that Shoemaker offers:<sup>2</sup>

(2) Sense perception involves the occurrence of sense-experiences, or sense-impressions, ... the occurrence of these constitutes the subject's-being “appeared to” in some way—a way that may or may not correspond to the way the object actually is.

(4) Sense perception affords “identification information” about the object of perception. When one perceives one is able to pick out one object from others, distinguishing it from the others by information, provided by the perception, about both its relational and its nonrelational properties. The provision of such information is involved in the “tracking” of the object over time, and its reidentification from one time to another.

*(Shoemaker 1994b, 252)*

This stereotype fits well if we take sight as our basis for generalizations concerning perceptual awareness of objects. It is plausible that being visually aware of a particular object in virtue of how things visually appear involves the capacity to single out that object and the capacity to discriminate it from other apparent objects. It will be helpful to distinguish these capacities and think of them as constraints on our stereotype of perception, so, following Bermúdez (1998), let us call them the **identification constraint** and the **multiple objects constraint**, respectively. The thought is not that these constraints determine the features that a form of awareness must possess for it to count as a form of object-perceptual awareness. Rather, the thought is that these seem to be exactly the sorts of features that would disqualify a form of awareness from grounding introspective judgments that are IEM.

We can unpack this by appeal to the **sole object view** described above, according to which bodily awareness is a form of awareness that presents only the subject's own body (Martin 1995, 1997). There is no possibility of being aware of another body in the manner distinctive of bodily awareness. There is, then, no possibility of misidentifying another's body (or another object) as one's own body, and this, it would seem, is precisely because bodily awareness does not operate according to the **identification constraint** and the

**multiple objects constraint.** In thus presenting only one's own body, bodily awareness provides grounds for judgments that are IEM. And it seems to only be able to do so, in virtue of *not* providing awareness of a field of multiple objects (i.e., meeting the multiple objects constraint) and singling out that object from among that field (i.e., meeting the identification constraint). For if bodily awareness did meet these constraints, it is not clear how it could have the hallmark feature of introspective awareness, namely serving as grounds for judgments that are IEM. Indeed, if the sole object view is correct, then it would seem that it cannot meet these constraints.

Sally finds perfectly sensible the implication that bodily awareness should not be modelled on a stereotype of perception that one might draw from reflection on vision. But she finds less convincing Shoemaker's proclamation that "no one thinks that there is such a thing as an introspective sense-experience of oneself, an introspective appearance of oneself that relates to one's beliefs about oneself as the visual experiences of things one sees relate to one's beliefs about those things" (Shoemaker 1994b, 255). After all, *she* is someone who thinks that there is such a thing, and, indeed, thinks that it is mistaken not to think so!

Sally suspects the mistake derives partly from a failure to properly distinguish and examine the identification and multi-object constraints. Once we have pared these apart, we can look at them a little more closely. For instance, on one way of thinking about what it is to have "identification information" about an object, it can only be possible to do so against a background of other objects—and thus, it can only be possible to do so by virtue of having that information through a form of awareness that meets the multiple-object constraint. But if one examines the bare requirement that one has information about the object in question, clearly the sole object view would meet this constraint. For there is no reason why a form of awareness constitutionally only able to present one object would preclude the provision of information about that object (Martin 1997, 123). Indeed, it would seem to be an excellent source of information about that object. Sally speculates, with some confidence, that it is such an excellent source because the function of this form of perceptual awareness is to monitor the state of one's body. This is not to say that we unfailingly monitor the state of our bodies. Indeed, Sally is willing to concede that it may only make sense to say that we can be thought of as "tracking" an object, to again use Shoemaker's terms, if we can lose track of it. But this is just what one does: one can, for example, lose track of what one's foot is doing when tapping it absent-mindedly, only to be surprised when one's attention returns to it (Bermúdez 1998, 144).

The sole object view might also seem to be obviously at odds with the multiple objects constraint. But Sally thinks that that is just a consequence of failing to attend properly to the phenomenology of bodily awareness. The human body is a highly structured object and our awareness of it is to some degree sensitive to its structure. The structure of the body is that of a whole composed of interlocked parts. We are not sensitive to every part (and certainly not every part of every part), nor are we sensitive to all the ways in which these parts are topologically connected. Nevertheless, our awareness of our bodies does involve differentiation of the body into multiple parts, where each part is presented as part of a single thing (Martin 1997, 125; Alsmith 2021a, 2195–2197). Here's an exercise that Sally likes, as a way of making the point vivid: Try to imagine that your body consists of a collection of detached (or rather unattached) parts. Two parts of your body, in such a situation, would only be parts of the same whole in roughly the sense in which your left and right shoes are parts of the same whole. What this provides is an illustrative contrast to our case, for our parts are integrated in just the ways in which, *e.g.*, left and right shoes are not. Indeed, if

you are anything like Sally, you might find it very difficult to imagine what it would be like to be such a scattered object, precisely because it would be so radically different from your own experience.

Thinking it through, Sally points out that in light of this differentiation it is easy to see how bodily awareness meets the letter of the multiple objects constraint.<sup>3</sup> For in attending to a part of her body, Sally “is able to pick out one object [one body part] from others [from other body parts, distinguishing it from the others by information, provided by the perception, about both its relational and its nonrelational properties” (Shoemaker 1994b, 252). She picks up her (now thankfully slightly cooler) mug of tea to illustrate. She can attend to the pressure sensations in each of her hands as she grasps the mug. She can appreciate their qualitative similarities, whilst noting the difference in their apparent spatial location within each hand. These are differences in their non-relational properties, their respective properties of being located within a specific hand—their “A-location”, as Bermúdez (1998, 154) would put it. As she brings the cup to her face, she notes the sense in which the A-location of each group of sensations remains the same, for the sensations continue to be located within each hand. But there is also a sense which their locations change, for each hand’s position relative to her face changes—their B-locations change, as Bermúdez (1998, 154) would put it. Her awareness of these sensations provides information that specifies both the non-relational spatial properties of events within a limb (A-location) and the relational properties of events within that limb, viz., the disposition of that limb relative to the entire body (B-location). This ongoing awareness of the spatial properties and positions of one’s limbs provides all the “identification information” necessary to track the body and its parts.

## 27.4 Pain

So far, Sally sees no reason to think that bodily awareness cannot be a form of perception *and* ground judgments that are IEM. And she sees lots of reasons to think that bodily awareness is a form of perception. Take the appearance-reality distinction. You might think that whether a form of awareness admits of such a distinction serves as a general test of whether that form of awareness is perceptual. If that were the case, then proprioception, for instance, would seem to be a form of bodily awareness that is perceptual. As a student, Sally participated in an experiment where she was blindfolded, asked to keep her arm perfectly still (resting on a table), while someone applied localized vibration (using an electric massager; it felt like the handle of an electric toothbrush) to her bicep tendon near the elbow. It felt just as if her arm were moving (extending) even though it remained stationary (see Craske 1977 for a review), and so she asked the obvious question (as she usually does): “My arm feels like it is moving but is it really moving?”. And, of course, that very question presupposes that it is possible for things that she is aware of in this way to appear (or seem, or feel) different from how they are.

At this point, it would be a good idea to discuss a form of bodily awareness that many philosophers take to be an obvious counterexample: pain. This may seem obvious partly because it is what may first come to mind as an example of bodily awareness—pain is the form of bodily awareness most broadly discussed in the philosophy of mind, often used as a means of illustrating the subjective quality of conscious mental states (Kripke 1980; Chalmers 1995; Nagel 1974). It is also frequently used as an example in disputes over the nature of introspection, including disputes over whether introspection is in some respect a

form of perception. And one of the central issues in that dispute is whether pain admits of an appearance-reality distinction.

But there is also a sense in which Sally finds it hard to even get on board with some basic assumptions of the dispute. For instance, Armstrong, in his defense of an “inner sense” model of introspection, uses pain as an example of a first-order mental state that becomes the object of a distinct, second-order introspective awareness (Armstrong 1980). On this view, the relationship between the pain state and the awareness of it is contingent, much like the relationship between an external object and its perception. Shoemaker (1994a) argues that the link between being in pain and having introspective awareness of it cannot be contingent in the ways that the perceptual model allows. Such a view would suggest the possibility of what he calls “self-blindness” (by analogy with ordinary blindness), in which a subject would be unable to be introspectively aware of a pain despite feeling it. But, Shoemaker contends, a creature truly in pain must dislike it and desire it to end; these functional roles, constituting pain behavior, seem to require introspective awareness of the pain.

Whether or not one finds Shoemaker’s critique convincing, what seems to be a shared assumption here is that in being aware of a pain, one is aware of a state of one’s mind. But that is not how Sally thinks of her pains. According to her, when she is aware of a pain, she is aware of a state of her body. Indeed, arguably that which makes pain a form of bodily awareness at all is its apparent location in a particular body part.

It is quite common for philosophers to characterize the phenomenology of pain as somewhat different from how Sally characterizes her pain. The thought goes something like this:

when you contemplate that very quality of, say, a toothache, the one that fills your awareness, it does not seem at all like the kind of thing that can be instantiated in one’s tooth (or the nerve, or whatever) without one’s being aware of it. That is, it is in its very nature a feeling, a moment of consciousness, something “for a subject.” Put another way, properties like pain aren’t ever merely instantiated; they are always, by their very nature, experienced. They are, if you will, modes of experience. If you take away the experiential aspect, the pain is gone too, though something very closely connected to the pain remains, namely the damage property that gives rise to the pain.

*(Levine 2008, 227)*

This interpretation might be supplemented by appeal to the inapplicability of the appearance-reality distinction. It seems absurd to ask, “This arm feels sore, but is it really sore?” in the same way one asks, “This dress looks white and gold, but is it really white and gold?”. And we can perhaps generalize the point: a tickle, a feeling of fatigue, and other forms of what Armstrong called “intransitive bodily sensations” (Armstrong 1962)—for each of these, the distinction between appearance and reality does not seem to apply (Aydede 2005).

Against this background, a perceptual theory of pain (and other intransitive sensations) seems somewhat radical (Pitcher 1970; Armstrong 1962). According to common versions of that theory, to be in pain is to be aware of a bodily state, typically actual or potential tissue damage, disturbance, or disorder. A perceptual theory of pain is well-placed to explain its intentionality (being about the body), its apparent spatial location (being in a part of the

body), and its crucial informational role (in signaling harm to the body), thereby integrating pain within a broader naturalistic or physicalist framework of perception.

Accordingly, some proponents of a perceptual theory of pain present it as revisionary (Hill 2005). But Sally would scoff: it is hardly revisionary to think of pains as perceptions of the body. From an early age, we are able to deploy the concept of pain to make sense of questions such as “Where does it hurt?”. Moreover, the idea of a bodiless, free-floating pain is at the very least hard to conceive, and certainly seems phenomenologically inadequate (O’Shaughnessy 1980/2008; Martin 1995). Indeed, some “folk” seem perfectly happy with certain implications of the perceptual account that are sometimes presented as radical, such as the implied possibility of unfelt pains (Reuter and Sytsma 2020) or hallucinated pains (Reuter, Dustin, and Sytsma 2014).

If Sally’s response here rings true, and we accept Levine’s (2008, 227) claim that a pain is “not at all like the kind of thing that can be instantiated [in a body part]”, then the concept of pain certainly seems paradoxical (Aydede 2005). One way of explaining away the paradox would be to say that our concept of pain involves a complex of distinct dimensions reflecting the apparently conflicting ways in which we think about pain in different contexts (Borg et al. 2020). However, what this requires is some way of thinking about pains as mental states and pains as bodily states according to which “mental” and “bodily” are “conflicting properties” (Borg et al. 2020, 44). Levine’s claim clearly expresses this idea. Although this reflects a broader tendency within the philosophy of mind (exemplified by the ‘mind-body problem’), it can tend to obscure a more straightforward view, what Sally takes to be her considered view: that some of her bodily states are mental states, such as pains.

After all, Sally is suspicious about any conception of what it is to be “bodily” that implies it is a way of talking about a non-mental entity. In the terms of a familiar contrast, we might characterize Sally’s sentiment as involving a decidedly non-Cartesian conception of bodily awareness, according to which pains are both spatial and psychological. For, as Brewer would put it, Sally, “the psychological subject” of her pain experience, is a “spatially extended object”, and thus when she ascribes to herself a pain, 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” (Brewer 1995). This would certainly fit better with the sentiment that bodily awareness is a form of perception in which a subject is introspectively aware of itself.

## 27.5 Introspection and Perspective

In further reflections on what he takes to be dissimilarities between perception and introspection, Shoemaker writes:

Another feature of the contents of perceptual experiences is their perspectival character. But there are not different introspective perspectives on the same mental entities, in the way there are different perceptual perspectives on the same physical ones. This is a further reason for denying that introspective awareness satisfies condition (2).

*(Shoemaker 1994b, 255, footnote 3)*

Sally has a diagnosis of what has gone wrong here. Shoemaker is pointing to a plausible dissimilarity between our awareness of mental entities and the perspectival structure of

visual appearances (remember that condition (2) concerns appearances). And this dissimilarity holds even if you think, as Sally does, that some mental entities are bodily entities. But the mistake is to think that this is the only way in which perceptual experiences (indeed, visual experiences) can be perspectively structured.

First, the convincing observation. Look around. Note that what you can see is limited in specific ways. For instance, your visual field is bounded both horizontally and vertically, so you can only see objects that fall within those limits. Furthermore, even for objects within those limits, some may be partially or fully hidden because opaque surfaces block the view of what is behind them, a limitation known as occlusion. These limitations are all relative to what is often called your point of view, viewpoint, or perspective. Rather unimaginatively, Alsmith (2017, 2021b) calls this a limitation structure (and the corresponding perspective a limitation perspective).<sup>4</sup>

Limitation perspectives structure perceptual appearances in characteristic ways. Here is a particularly obvious example. When we look at an opaque object, we only “properly” see the facing side (as Husserl (1973/1997, 42 [49]) puts it). But it is experienced as a part of the object—as a *side*. It is experienced as part of a larger whole, the appearance of which is yet to be determined. Yet, in being visually aware of the object, we anticipate discovering the appearance of those parts as they come within view, in accordance with the limitations of the perspective from which we view it.

The way in which limitation perspective structures perceptual appearances (as described above) gives rise to, as Smith puts it, “an *over-againstness* with which perceptual objects are given to perceptual awareness: an *over-againstness* which involves a part of our body functioning as a *sense-organ*” (Smith 2002, 134, his emphasis). It is in virtue of this that a perceptual object appears to be “a three-dimensional solid body localized beyond our body’s surface” (Smith 2002, 134).<sup>5</sup>

Sally thinks she sees what Smith is getting at. This ‘over-againstness’ is a way in which a perceived object can be presented as independent of the part of her body with which she perceives it. And here is where Sally is in agreement with Shoemaker. She thinks that it is indeed implausible that limitation structure is a feature of introspective awareness, both in general and in the specific (putative) case of bodily awareness. When Sally feels the sensation of stretch and tension in her wrist and elbow, a burning sensation in her tongue, or a pressure sensation in her hand, it does not seem to her that some distinct part of her body is “functioning as a sense-organ”, nor does it seem to her that the objects of her awareness are “localized beyond” her body’s surface, as Smith puts it.<sup>6</sup>

In light of these observations, we can make sense of remarks by some philosophers who say things like, “[in bodily sensation 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” (Martin 1995, 271), and that “in feeling bodily sensations one is aware of one’s body ‘from the inside’, but we should not understand this in terms of there being some point in space from which and relative to which one is aware of one’s body” (Soteriou 2013, 122). What these philosophers are concerned to show is that bodily awareness does not have the structural organization characteristic of sight that Smith alludes to in his discussion of over-againstness (this is explicit in Soteriou’s case—see Soteriou 2013, 115). But it would be a mistake to think that this is the only way in which perceptual appearances can be perspectively structured, or to conflate this with other ways in which perceptual appearances can be perspectively structured.<sup>7</sup>

Another way in which perceptual appearances can be perspectively structured is in their spatial organization—in particular, in being spatially organized relative to an egocentric frame of reference. An egocentric frame of reference is one in which locations are organized relative to a central point or origin, often conceived as the intersection of orthogonal axes labelled with canonical directions like leftward, upward, and forward. Locations and directions (e.g., “nearby”, “far away”, “to the left”, “coming closer”) are specified relative to this privileged point, the perspective relative to which the entire structure is organized. A perceptual experience is described as egocentrically structured when its content—the way objects and the environment are presented—is organized in this way. The perspective is typically located within the body of the subject, and thus the spatial appearance of objects and the environment is presented in relation to a location within the subject’s own body.

Although no-one (as far as I am aware) claims that bodily awareness has a limitation structure, there are those who claim that it has an egocentric structure. Bill Brewer, for instance, writes that “the object of awareness itself is spatially located—a property of a given body part at a particular location in egocentric space” (Brewer 1995, 303). Here Brewer takes himself to be following closely Brian O’Shaughnessy’s analysis of the phenomenology of bodily awareness, in which he proclaims that “the basic ‘given’” in bodily awareness is a “feeling-in-a-particular-body-part-at-a-position-in-body-relative-physical-space” (O’Shaughnessy 1980/2008, 200). Frédérique de Vignemont also interprets O’Shaughnessy’s notion of body-relative space as an egocentrically structured presentation, and suggests that, for example, “[when] something brushes our knee, not only do we feel a tactile sensation, we also become suddenly aware of the presence of our knee as being located in egocentric space, as a body part that we can reach and grasp” (de Vignemont 2018, 244).

Sally thinks that this is all fine as far as it goes, but she thinks that we need to bring out a little more of the detail in order to show what is mistaken about Shoemaker’s assertion that “there are not different introspective perspectives on the same mental entities, in the way there are different perceptual perspectives on the same physical ones” (Shoemaker 1994b, 255, footnote 3). A further part of the problem here is that the egocentric structure of perceptual experience is sometimes described as involving a single egocentric frame of reference, the origin of which is located within or centered on ‘the body’, as if the latter were an unarticulated lump. This is an oversimplification, and one that can be especially misleading when thinking about the relation between subjects and their egocentric perspectives.

Consider Peacocke’s example of looking at Buckingham Palace:

Looking straight ahead at Buckingham Palace is one experience. It is another to look at the palace with one’s face still toward it but with one’s body turned toward a point on the right. In this second case the palace is experienced as being off to one side from the direction of straight ahead, even if the view remains exactly the same as in the first case.

*(Peacocke 1992, 62)*

What this example illustrates is one way in which the spatial properties of a part of one’s body can affect perspectival appearance. We can characterize this by using the notion of *anchoring* to describe a systematic relationship between variations in the spatial properties of a body part and variations in appearances. For Peacocke, when he looks at Buckingham

Palace and rotates his torso, there is a change in its appearance: it no longer appears to be straight ahead; it appears to be off to one side. But it is no stretch of the imagination (and indeed it might seem more natural for some) to say that the same would happen if one rotated one's head rather than one's torso in such a situation. To paraphrase Peacocke, looking straight ahead at the palace is one experience; it is another to look at the palace with one's torso still toward it but with one's head turned away—in such a case, the palace would (again) be experienced as being off to one side.

This is just one of the more vivid examples of the complexity of the egocentric perspective. There is also reason to think that auditory perception (Neelon, Brungart, and Simpson 2004) and haptic perception (Oldfield and Phillips 1983) are each structured according to multiple egocentric perspectives (see Alsmith 2021b for discussion). And indeed, coming back to vision, the full picture is plausibly as Robert Briscoe describes, when he writes that “my visual experience of an object may convey information about its location relative to any part of my body (seen or unseen) of which I am proprioceptively aware. I may perceive, *e.g.*, that the object is closer to my right hand than to my left hand, or above my waist, or below my chin, *etc.*”. (Briscoe 2009, 425–426).

These brief reflections on the nature of egocentric perspective have hopefully made clear enough a further respect in which a single subject may enjoy “different perceptual perspectives on the same physical [entities]” (Shoemaker 1994b, 255, footnote 3). But they also serve to bring out the fact that we should not conflate subjects and their perspectives. Sally worries that Bermúdez may be guilty of this in his argument for the claim that “the spatial content of somatic proprioception cannot be specified within a frame of reference that takes the form of axes centered on an origin” (Bermúdez 1998, 153).<sup>8</sup>

Bermúdez (1998, 153) offers what might be described as an argument from criteria: A structure is egocentric only if there are sensible answers to relative distance and direction questions. In bodily awareness, there are no sensible answers to these questions. Therefore, the structure of bodily awareness is not egocentric. Sally thinks that the second premise is patently false. She had a nasty fall once. She pulled a muscle in her back, got a bruise on the side of her torso, and a large gash on her forehead. A relative distance question that she could have answered easily was whether the bruise felt closer to the pulled muscle than the gash in her forehead. A relative direction question she could also have answered easily was whether the pulled muscle and the gash were in the same direction from the bruise.

Why then does Bermúdez think that this would not be the case?<sup>9</sup> The most plausible interpretation, Sally thinks, is that he has not observed the distinction between an experience's perspectival structure and its self-locating content.<sup>10</sup>

What I am really asking when I ask which of two objects is farther away is which of the two objects is farther away from me, and a similar tacit self-reference is included when I ask whether two objects are in the same direction. The reason one cannot ask these questions with regard to somatic proprioception is that the events about which one learns through somatic proprioception take place within the confines of the body, and there is no privileged part of the body that counts as *me* for the purpose of discussing the spatial relations they bear to each other (in the way that, for example, the origin of the visual frame of reference can count as me when those questions arise for visually presented objects).

*(Bermúdez 1998, 153)*

Sally takes issue with most of this. He is right, of course, that there is no privileged part of the body that counts as me (or as Sally) when discussing the spatial relations that bodily events bear to one another. But that does not preclude the possibility of being aware of events that occur in parts of one's body in a manner that is egocentrically structured. The real issue, though, seems to derive from the thought that the origin of an egocentric frame of reference counts as me in an experience that is egocentrically structured. Sally's suggestion is that a better thought is that the origin (the perspective) is the place from which things appear perspectively structured as they do, but that is a place within a part of her—saying that it can “count as me” can tend to obscure this fact. Similarly, when she has introspective awareness of various properties of herself in virtue of perceiving her body, these properties may appear to be spatially arrayed according to an egocentric perspective anchored to some part of her body.

## 27.6 Conclusion

We began with Sally's reflections on drinking a cup of tea, and her sentiment that the bodily awareness she enjoys in the course of that episode is both perceptual and introspective. The philosophical arguments we have considered have tried to show that Sally was somehow mistaken in her assessment. She was told her bodily awareness is introspective in only a circumscribed manner, for it is not as robustly IEM as genuine introspection, because of the possibility of crosswire cases. She was told that bodily awareness cannot be IEM if it is perceptual, because perceptual awareness involves identifying an object that appears as one amongst others. She was told that her pain couldn't be something she perceives in her body, because pains are mental. And she was told that bodily awareness cannot be perceptual, because it lacks the perspectival character of perception.

Sally's response, at each turn, has been to attend closely to the assumptions of the arguments, and to show that they are either unwarranted or subject to alternative interpretations that are more plausible in the light of her own experience. She argued that imagining crosswire cases shows us very little, and certainly nothing that undermines bodily awareness serving as grounds for IEM judgments. She argued that once we properly distinguish between being in possession of identifying information about an object and being aware of an object as one amongst others, we can see that bodily awareness fulfils both roles: it is a means by which we are able to keep track of a single object, the articulated structure of which admits of differentiated awareness of its multiple parts. She insisted that pain is best understood as a perception of a bodily state, and suspects that temptation to think of it otherwise derives from the mistaken idea that what is bodily cannot also be mental. And finally, she disentangled two distinct forms of perspectival structure: limitation structure and egocentric structure. She showed that while bodily awareness arguably lacks limitation structure, to deny that it is richly egocentrically structured would be to confuse the spatial properties of a perspective with the spatial properties of the subject. So, maybe Sally is right after all.

## Notes

- 1 For further discussion, see Salje and Morgan's chapter 'Introspection and First Person Thought', in this volume.
- 2 I have selected these in part because they are the most significant for the present discussion. Of the seven conditions Shoemaker discusses, condition (4) is the most obviously in tension with the sole object view. Some of Shoemaker's reflections on condition (2) will form the focus of section V.

- 3 Schwenkler (2013) assumes that if bodily awareness satisfies Shoemaker's informational requirements via the differentiation of parts, it must therefore present a multiplicity of *discrete objects* in the manner of visual perception. This ignores the possibility, described here, that one can track a multiplicity of parts as the internal structure of a single, unique object.
- 4 See also Richardson (2010).
- 5 Smith (2002) argues that spatial over-againstness is essential to perceptual appearance. It would take us too far afield to engage with his rich discussion here. Suffice it to say that we can embrace the idea that over-againstness is a structural feature that distinguishes sight, hearing, and touch from bodily awareness, without denying that the latter is a form of perceptual awareness with its own distinctive structure (Martin 1995, 1992; Soteriou 2013).
- 6 Smith also asserts that the phenomenon of over-againstness is present when looking at one's hand (Smith 2002, 134). This would suggest that being "localized beyond our body's surface" is in fact not essential to the phenomenon of over-againstness. Rather, what seems to be essential is the way in which our awareness of the object is limited—the ways in which its aspects may be obscured with respect to the spatiotemporal constraints inherent to the sense organ's functioning.
- 7 For an example of such a conflation, see Orbán (2018, 42–49).
- 8 Bermúdez uses the term "somatic proprioception" in roughly the way in which the term "bodily awareness" has been used in this entry (Bermúdez 1998, 132–134). Though his discussion and terminology have much to recommend them (for their subtle treatment of issues we have left aside), we will stick with "bodily awareness" for its intuitive connotations and for overall consistency.
- 9 This is especially surprising, given that his notion of a B-location fits a rough interpretation of egocentric location (see, e.g., de Vignemont 2018, 71, footnote 2)
- 10 Bermúdez has excellent company on this score. For a selection, see, e.g., Cassam (1997, 52–53); Zahavi (1999, 92–93); Smith (2002, 145); Thompson (2005, 411); Schellenberg (2007, 619); and Noë (2004, 168–169).

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