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SECTION 1

Phenomenal consciousness: Brain, action and interaction

What *reason* could there be to believe in pre-reflective bodily self-consciousness?

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This paper aims to examine the reasons for endorsing the idea of pre-reflective bodily self-consciousness. The guiding question will be: why should one think that any description of consciousness that posits PBS is correct? The aim of this discussion is to show how hard this question is to answer and the kinds of considerations that one should bring to bear in attempting to answer it.

Keywords: explanation; phenomenology; bodily self-consciousness; attention; introspection

1. Introduction

Scepticism can be a useful filter in eliminating dubious opinions. It makes acute the need to provide reasons for believing certain claims to be true. This is essentially the motivation for the 'method of doubt' employed in Descartes' *Meditations*, and is widely regarded as providing the framework for identifying philosophical problems of knowledge (*cf.*, Ayer 1956; Williams 2001). But this methodological insight can be useful in other quarters. In particular, it can serve as a *nemesis* to curb any potential *hubris* in areas in which providing reasons for beliefs might be less common. One of these areas is in the description of consciousness, although this thought breaks with tradition. A bedrock intuition for many is that if something seems a certain way then whilst one may be wrong about what it is that seems to be so, or whether it is in fact as it seems to be, one cannot be wrong about the fact that it *seems* to be that way. That is, although it is widely held that appearance may differ from reality, the thought that one could be wrong about appearance itself is not widely entertained.

But there are exceptions; and rightly so, as a variety of philosophical debates about the nature of mind are driven by differences of opinion with regard to the description of conscious experience (see Bayne & Spener 2010 for a review). Moreover, advances in understanding consciousness would surely be precluded if the description of conscious experience operated in isolation from rational enquiry. Such isolation would occur where a call to provide reasons for one's beliefs could not be answered, even

in principle. A worry motivating the present treatment is that one comes dangerously close to such a situation when claiming the existence of a form of self-consciousness known in the recent literature as pre-reflective bodily self-consciousness (PBS).

Fortunately, taking a weakly sceptical stance on PBS can provide an opportunity for examining the reasons for endorsing the idea. The guiding question will be: why should one think that any description of consciousness that posits PBS is correct? The aim of this discussion is to show how hard this question is to answer and the kinds of considerations that one should bring to bear in attempting to answer it.

Pre-reflective self-consciousness

An indispensible background to the discussion will be the concept of pre-reflective self-consciousness often posited in descriptions of the relationship between consciousness and self-consciousness. Although it is a familiar theme in recent Anglophone philosophy of mind, often going by the name of non-observational self-awareness (e.g. Shoemaker 1987), arguably the concept finds its origin in the phenomenological tradition fathered by Edmund Husserl. Indeed, a prominent scholar of that tradition notes that despite many points of disagreement therein, nevertheless "all the major thinkers in phenomenology defend the view that the experiential dimension is characterized by a tacit self-consciousness" (Zahavi 2005, p. 11). Superficially, though, it might seem that most of the major phenomenological writers are united in proverbial patricide. For according to the common charge, Husserl himself failed to adequately grasp the subtleties of self-consciousness. His obsession with intentionality, as the story runs, led him to characterise self-consciousness as involving an act of reflection whereby a subject is intentionally related to herself. Fuller examination of the Husserlian oeuvre sheds considerable doubt upon the charge (cf., Zahavi 2003), but a brief account of the worry motivating it provides adequate context for the notion of pre-reflective self-consciousness.

The motivating worry is simply that reflection is most naturally construed as an act relating distinct *relata* and that consequently any attempted explanation of self-consciousness on this basis would be at best problematic: Given that the *relata* are

^{1.} No efforts will be made to specify the relevant class of conscious creatures. This neglect can perhaps be forgiven in light of the fact that PBS is typically posited in the first-person singular, and otherwise posited in the first-person plural with unspecified scope. An evaluation of whether phenomenological notions such as PBS and pre-reflective experience in general can usefully serve to highlight psychopathological states might go some way towards remedying this situation (Parnas, Sass, & Zahavi 2008). Again, this possibility remains unexplored here.

distinct, why would the act be sufficient to yield *self*-consciousness? Dan Zahavi relates the moral drawn by several authors in the phenomenological tradition:

[...] one should avoid theories that describe self-awareness as a kind of relation – be it a relation between different experiences, or between the experience and itself – since every relation, especially the subject-object relation, presupposes a distinction between two (or more) *relata*, and this is exactly what generates the problem. (Zahavi 2003, p. 159, see also pp. 157–159)

Nevertheless, there have been (both historically and recently) several attempts to exhaustively characterise consciousness in terms of its putative intentional relations. These include views that hold consciousness to consist in intentional content made available to a "higher-order" mental faculty (e.g. Carruthers 2005; inspired by Locke 1690/1997), and views that hold that intentional states are conscious in virtue of taking themselves as (secondary) objects (Brentano 1874/1973; more recently developed by Kriegel 2009). Given that, in some sense, all parties agree that a treatment of consciousness that neglects its subjectivity will be inadequate, the worry is then similar to that broached by Husserl's critics; in requiring that consciousness is exhaustively intentional, one will thereby neglect its subjectivity (Zahavi 1999, 2005, 2006). Whether or not that is the case, these negative remarks typically arise concomitantly with the positive claim that subjectivity in its most minimal form is a non-intentional, invariant structural feature of experience, prior to and distinct from any act of reflection (Legrand 2007a; Zahavi 1999, 2005). Following terminology introduced by Jean-Paul Sartre and Maurice Merleau-Ponty, subjective experience of this form is dubbed pre-reflectively self-conscious experience.

3. Pre-reflective bodily self-consciousness

Although pre-reflective self-consciousness commits one to a certain stance on the structure of self-consciousness, arguably it is silent on the metaphysical nature of selfhood. Certainly it has been developed by theorists who claim that "the self is real if it has experiential reality" (Zahavi 2005, p. 128). But perhaps it can equally well be endorsed by those who hold that "phenomenological structure *per se* will never determine metaphysics" (Metzinger 2011, p. 282). The issue here would be whether in entertaining the concept of pre-reflective self-consciousness one is thereby entertaining a substantive thesis on the nature (and indeed, perhaps, the existence) of selves. This is a significant point because a number of contemporary authors seeking to establish substantive theses on the existence of *bodily selves* employ the notion that is our focus, PBS (Gallagher 2005; Legrand 2006; Thompson 2005, 2007). One can grasp what is at stake here by contrasting consciousness of the body that happens to be one's

own with what Dorothée Legrand calls *genuine bodily self-consciousness* (cf., Legrand 2006, pp. 89–91; Martin 1995, pp. 282–285). With regard to the latter, she writes:

[...] if bodily consciousness is a genuine form of self-consciousness (i.e. consciousness of one's body as oneself), bodily consciousness would be an intrinsic part of one's sense of oneself. The existence of such a bodily self-consciousness would imply the existence of a genuine bodily self. (Legrand 2006, p. 90)

For the purposes of this discussion, I will refrain from any treatment of whether the existence of PBS is a "genuine" form of self-consciousness. In particular, I will refrain from passing judgement on whether the existence of PBS has the implications that Legrand claims. In doing so, I will thus remain neutral on the nature and existence of selves. The focus of the following discussion will be squarely upon issues concerning PBS itself. But noting the manner in which PBS is often wedded to a substantive thesis on the existence of bodily selves will be of some use in articulating the proposed phenomenon.

There is a recurrent worry about conceptualising the bodily self as an object amongst the progenitors of the concept of PBS. For instance, Merleau-Ponty declares that: "I am a body which rises toward the world" (1945/2002, p. 75); and later he adds a key clarification about the nature of this body:

I observe external objects with my body, I handle them, examine them, walk around them, but my body itself is a thing which I do not observe: in order to do so, I should need the use of a second body which itself would be unobservable.

(Merleau-Ponty, 1945/2002, p. 91)

Similarly, Sartre claims a certain incompatibility in two ways of describing the body:

It is true that I see and touch my legs and my hands. Moreover nothing prevents me from imagining an arrangement of the sense organs such that a living being could see one of his eyes while the eye which was seen was directing its glance upon the world. But it is to be noted that in this case [...] I apprehend it as a sense organ constituted in the world in a particular way, but I cannot "see the seeing"; that is, I cannot apprehend it in the process of revealing an aspect of the world to me. Either it is a thing among other things, or else it is that by which things are revealed to me. But it cannot be both at the same time. (Sartre 1943/1992, p. 304)

What seems to be operative in this passage is a contrast between describing the body as an object of perceptual experience and describing the body as the means by which perceptual experience is possible. Husserl surely speaks of the latter when he claims that "[t]he Body [...] is *necessarily* involved in all perception" (Husserl 1952/1989, p. 61, emphasis original). The capitalisation is original to the translation of his work, and is intended to convey a systematic divergence in the reference of two terms: the *body* is

an (abstracted) object of attention, scientific investigation, or introspective scrutiny ($K\ddot{o}rper$); whereas the [B]ody is the non-perceptually experienced subject of perception and action (Leib). Canonically, this is rendered as a distinction between the living body and the lived body.²

More recently, Shaun Gallagher (2003a), summarising the work of Brian O'Shaughnessy (1980/2008, 2000, pp. 628–655) and echoing the phenomenological authors lately cited, marks such a perceptual/non-perceptual contrast as the difference between the experience of attending to something and the experience of something unattended, where the latter experience is the means of that attending. In doing so he is presenting a phenomenological description of bodily experience intended to contrast with that of Jose Luis Bermúdez, who writes that:

The best description of the phenomenology of touch is that tactile experience is always both exteroceptive and proprioceptive. Attention can be directed either proprioceptively or exteroceptively, and it can be shifted from one to the other, but this should be viewed as an alteration of the balance between focal and peripheral awareness. When attention is directed exteroceptively toward the spatial properties of an object, the perceiver remains peripherally aware of [its] spatial properties [...] and vice versa. (Bermúdez 1998, p. 139)

To the contrary, Gallagher claims: "The tactile perception of an object is not accomplished through my perceptual awareness of the changing spatial properties of my fingers; awareness of my fingers is not equivalent to my tactile awareness of the object" (Gallagher 2003a, p. 61). The claim being that in the act of perceptually experiencing something, the body enabling that experience is not itself perceptually experienced. And again, a similar sentiment is expressed by Dan Zahavi in declaring that when he is "directed at and occupied with objects", his "perceptual act and its bodily roots are generally passed over in favor of the perceived" (Zahavi 1999, p. 98).

Typically those who endorse PBS operate with a conception of perceptual experience as a dynamic, intrinsically temporal process, the description of which is thought be impoverished without reference to the subject's anticipations of her mobility. Although such an idea is widely associated with Merleau-Ponty, arguably (within the tradition at least) it is original to Husserl's work (Husserl 1952/1989, 1973/1997; Smith 2007; Zahavi 1994, 2002). The core idea is that in perceptually experiencing an object, the various presented aspects of an object are experienced as continuous with presently hidden aspects; but only in so far as they are united by a corresponding continuity in anticipation of the bodily movements involved in explorations that would reveal the object

^{2.} See and *cf.*, the translators notes to Husserl (1952/1989, pp. xiv–xv) and (1973/1997, p. xvi). Also see pp. 137–138 [161–163] of the latter. This distinction vividly highlights the ontological peculiarities of the bodily subject of experience, and perhaps usefully so.

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further. Thus, for instance, visual sensations presenting the same object over time are described as standing in systematic relations to what Husserl refers to as "kinaesthetic" sensations of bodily movement, specifically movements of the effectors enabling the mobility of the sensory organs: the eyes, the head, the torso; and indeed the whole body itself (Drummond 1979, , 2003, pp. 75–81; Husserl 1973/1997, pp. 144–147, 173–176). Accordingly then, it is claimed that any instance of perceiving the world involves pre-reflective experience of continuity in one's bodily activity. Importantly however, in perceptually experiencing the world, the subject is intentionally directed at the world and not her own body. In perceptual activity, kinaesthetic sensations are not themselves intentional objects. Husserl's Body is characterised by a tendency "to efface itself" when engaging the world though perception and action (Zahavi 1999, p. 98).

Hence a theme that emerges from worries about conceiving of the bodily self – Husserl's 'Body' – as an object is the following claim:

i. In perceptual experience, the Body is neither perceived nor attended to.

Certainly the claim stated thus could use refinement, but part of the aim in stating it so bluntly is to note that at least two divergent claims could follow:

- ii. In perceptual experience, the Body is not experienced.
- iii. In perceptual experience, the Body is non-intentionally experienced.

Certainly the latter day and present day phenomenologists cited take their remarks to be indicative of (iii), and thus indicative of PBS. But none of the remarks quoted in this section so far rule out (ii). Here are some remarks that do though:

Pre-reflective bodily self-consciousness is evident in touch, for we not only feel the things we touch, we feel ourselves touching them and touched by them [...]. Such bodily experience offers not only the experience of physical events that relate one's body to things, but also the experience of sensorial events that relate one's subjectively lived body to itself. (Thompson 2005, p. 412)

Yet the question persists: why should we believe that PBS is in fact "evident" in touch or in any other conscious experience? The description does little to advance (iii) over (ii), further than simply asserting the truth of the former. What is not evident at all is why we should think that *this* description is correct.

4. Abundant and/or sparse

A seemingly pertinent difference of opinion for the present investigation has been expressed by Eric Schwitzgebel as that between *abundant* and *sparse* views of

consciousness (Schwitzgebel 2011, Chapter 6).³ Although the distinction is hard to draw cleanly, an intuitive sense can be gained from differing revelations. John Searle proclaims that: "We are conscious of a very large number of things that we are not attending to or focusing upon" (Searle 1992, p. 137); Julian Jaynes marvels at his ability to be "constantly reacting to things without being conscious of them at the time" (Jaynes 1976, p. 22, as cited in Schwitzgebel 2011, p. 95). At first blush these two views might not seem mutually exclusive. But Searle continues: "up to this moment [...] I have not been paying attention to the feeling of the chair against my back, the tightness of my shoes [...] Nonetheless, all of these phenomena are part of my conscious awareness" (Searle 1992, pp. 137–138). Jaynes seems to find just the opposite to be noteworthy, as he writes of sitting at the foot of a tree: "I am always reacting to the tree and to the ground and to my own posture, since if I wish to walk, I will quite unconsciously stand up from the ground to do so" (*op. cit.*).

To further contrast abundance and sparseness in a single context, consider Horgan and Tienson's brief description of consciously seeing an apple on a table, picking it up and taking a bite:

There is the look and smell of the apple. Then (as you grasp it) there is the feel of the apple, its smoothness, roundishness, and firmness. Then there is its weight (as you pick it up). Finally there is the feel of the apple in your mouth, followed by the crunching sound, taste, and feel of juiciness as you take a bite.

(Horgan & Tienson 2002, p. 521)

Sparse and abundant views would offer different interpretations of this passage. On a sparse view, the passage ought to be read as a list of experiences – a look, a smell, a feel *etc.* – perhaps with increasing degrees of sparseness corresponding to an increasing number of items on the list. Listing experiences is probably not Horgan and Tienson's intention; in their words, they wish to refrain from any attempt "to write the small book one could write describing this simple experience" (*ibid.*). Although simple in the sense of being mundane, "this simple experience" is evidently complex, in so far as it comprises a range of sensory qualities: looks; smells; sensations of weight, texture

^{3.} See also Hurlburt & Schwitzgebel (2007, 2011) and Schwitzgebel (2007) where the same distinction is drawn using the terms *rich* and *thin*. The change of terminology is explained in Schwitzgebel (2011, p. 177, n. 1). Incidentally, I should note that although the dispute between *sparse* and *abundant* views might seem to be a matter of terminology, it is better understood as a difference in intuitions concerning the nature of consciousness. That is, all parties to the dispute believe that their concept of consciousness tracks the reality of consciousness in a way that an opposing (sparse/abundant) view does not; the question is whether consciousness *really is* sparse or whether it *really is* abundant. Indeed, what makes the issue so vexing (if it is not merely a matter of terminology) is that it is precisely the kind of conceptual issue that does not seem to be empirically tractable.

and shape; gustatory sensations of flavour and consistency *etc.* Moreover, ostensibly referring to the entire episode as one experience (they soon use the expression "total experience") suggests that just one experience can comprise this entire range of qualities. Such an abundance of sensory qualities obtaining simultaneously is precisely what a sparse view would deny.

Although the sparse/abundant distinction is straightforwardly illustrated, the illustrations indicate that it can be drawn in more than one way. Sparse views can impose both/either:

- a. limitations in the candidate phenomena of conscious experience,
 - e.g. (*) inclusion of only those that occur within focal attention,
 - &/or (†) inclusion of only those that are objects of perception; &/or,
- b. limitations in the number of phenomena experienced at a time,
 - e.g. (**) within the field of a single sense modality,
 - &/or (‡) between the fields of multiple sense modalities.

By contrast, views count as abundant to the extent that they relax the limitations imposed in either (a) or (b) or both.

Both (a) and (b) are present but not noted as distinct in Schwitzgebel's treatment (2011, pp. 91–92), though making the distinction and presenting the various options for each allows for the possibility of more nuanced moderate views. Indeed, one can consistently endorse abundance with respect to (b) and sparseness with respect to (a) (cf., Armstrong 1961, pp. 111-112, 1980, p. 59). But admittedly, an intuitive means of imposing (b) limitations on the number of conscious phenomena experienced at a time is to impose (a) limitations on candidate conscious phenomena. And this also runs in the other direction. For in so far as it is claimed that pre-reflective bodily experienced "sensorial events are ones in which one's body does not sense itself explicitly" (Thompson 2005, p. 412), the claim that these events are contemporaneous with those presenting experience of the world becomes more natural. In any case, it ought to be clear that an endorsement of PBS commits one to an abundant description of consciousness. Moreover, if abundance were correct as a general description of consciousness, that would provide indirect reason for thinking that the body is pre-reflectively experienced. Unfortunately, the prospects for deciding which description is correct (sparse/abundant) are rather poor; and the situation is even worse when considering pre-reflective experience.

5. Indefeasible descriptions

There are certainly resources available for what appears to be a debate over sparseness and abundance, though their deployment is fraught with controversy and potential misunderstanding, and in the end frustratingly inconclusive.

© 2012. John Benjamins Publishing Company All rights reserved To begin with, here is Dennett's notorious attack on abundance:

The *visual field* seems to naïve reflection to be uniformly detailed and focused from the center out to the boundaries, but a simple experiment shows that this is not so. Take a deck of playing cards and remove a card face down, so that you do not yet know which it is. Hold it out at the left or right periphery of your visual field and turn its face to you, being careful to keep looking straight ahead (pick a target spot and keep looking right at it). You will find that you cannot tell even if it is red or black or a face card [...] You will probably be surprised at how close to center you can move the card and still be unable to identify it.

(Dennett 1991, pp. 53–54)

Dennett's intentions here are fairly obvious, yet he employs a quasi-technical term in stating those intentions that makes the room for dispute almost equally obvious. Much of the controversy over the notion of the visual field in the history of psychology has been generated over its purported connection to visual experience of the world (see Boring 1952a; 1952b; Gibson 1950, 1952). Moreover, marking the potential difference serves to delineate the space of options presented by the surprising deficiency that Dennett highlights. Dennett's card trick might be taken by some to demonstrate that we are simply mistaken about our visual experience of anything that is not directly ahead of us, seemingly at odds with Searle's proclamation that we are "conscious of a very large number of things that we are not attending to or focusing upon" (Searle 1992, p. 137). But if one has antecedent reason for thinking that visual experience is abundant, then the trick is no threat. Indeed, a view might count as abundant precisely because it holds that visual experience need not correspond to what one can report concerning one's static visual field (cf., Siewert 1998, p. 254).

Similar issues play out in discussion of the results of (provocatively named) 'change blindness' experiments that probe the extent to which participants are able to respond to rapid or gradual changes in a stimulus array (Simons & Rensink 2005), and 'inattentional blindness' experiments where objects are presented in the peripheral visual field whilst the subject undertakes a discrimination task concerning foveally positioned objects (Mack & Rock 2003). Some see the locus of controversy as concerning the assumption or rejection of a certain treatment of the mechanisms enabling visual experience (Noë 2001; Noë, Pessoa, & Thompson 2000). But others provide a more 'common-sense' based response that in this kind of situation one is simply unable to *report* on the unattended, and the possible reasons for this do not rule out the possibility of *experiencing* the unattended (Mole 2008). This latter is an instance of the most general

^{4.} A perfectly useful definition of the visual field need make no reference to consciousness. For instance, one might define it as the spatial extent of the frontoparallel plane in which stimuli can elicit an appropriate psychological response, such as those elicited in perimetric tests employed by clinical psychologists (see *e.g.* Schwartz 2010, pp. 57–59).

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strategy available to an advocate of abundance: simply deny that any reportable psychological response provides an adequate test of whether consciousness is abundant. Then again, an advocate of sparseness has an equally general strategy that need not rely upon clever card tricks or experiments. She can claim that any abundant description results from an illusion generated by the accessibility of the relevant information, and this illusion – known variously as the "refrigerator light illusion" (Thomas 1999, pp. 219, 221) or the "immanence illusion" (Minsky 1986, pp. 155, 257) – is revealed as such by the probing experiments above (see also Dennett 1969/1983, pp. 139–140). And although the majority of discussion in this area concerns visual experience, the issue is perfectly general. Indeed, change blindness might reflect "a more general multimodal/amodal mechanism (possibly related to the awareness of spatial information)" (Gallace, Tan, & Spence 2007, p. 484) that operates across both visual and tactual modalities (Gallace, Tan, & Spence 2006). But an evaluation of whether discovery of such a mechanism supports a sparse (and counts against an abundant) view will meet a similar *impasse*.

Schwitzgebel raises these worries and many more in discussion of his own attempts to evaluate sparse and abundant views. In the hope of a resolution he uses a method for introspective testing developed by Russell Hurlburt and his colleagues: descriptive experience sampling (DES). DES requires that participants wear a device that beeps at long but irregular intervals, at which point they are to note their experience in the "last undisturbed moment before the beep", which becomes the focus of discussion in an interview the following day (Hurlburt & Schwitzgebel 2007, p. 22, see also pp. 20–25). Schwitzgebel applied this method, splitting his subjects into five conditions:

- 1. full experience;
- 2. full tactile experience;
- 3. full visual experience,
- 4. tactile left-foot experience
- 5. far-right visual field experience.

Participants in (1) were not informed that the study aimed to test whether their experience was sparse or abundant; these participants were required to note whether they had any experience at all just prior to any given beep. Participants in (2)–(5) were informed and their initial stance on the issue was noted before the study; these participants were required to note whether they had an experience corresponding to their condition just prior to any given beep. Although initially a mixed group, Schwitzgebel reports that: "All my participants exited the experiment with a moderate view of some sort, thinking that experience extends well beyond the field of attention but does not include the entire field of every major modality all the time" (Schwitzgebel 2011, p. 104). Thus it seems that all participants ended up endorsing a view according to which (*) is rejected (see above), with crude sparseness/abundance abandoned as overly extreme.

How does this bear upon PBS? Although PBS might seem occasionally committed to a radically abundant view, if a moderate view were held to be correct then PBS could perhaps be modified accordingly. But drawing such a lesson might be rather too quick; indeed, Schwitzgebel seems hesitant to make general conclusions from the reports he gathered, even conclusions concerning the individual subjects themselves (Schwitzgebel 2011, pp. 105–112). Moreover, there are particular reasons why the study could not have served to test PBS in an extreme form. Even if (contrary to fact, see Schwitzgebel 2011, p. 103) all reports corresponding to (2) were negative, taking negative reports as evidence of the absence of bodily experience seems to beg the question against an abundant view. As Christopher Hill explains:

When a subject denies that an experience of a certain sort occurred on a particular occasion, it may be that, as a result of the limits of attention, the subject has simply overlooked an experience that was present but not prominent. As a result, *negative* introspective reports should be accorded much less weight than positive reports.

(Hill 2011, p. 29)

This is simply an application of the general strategy broached earlier. Indeed, it is not clear how any DES study could unequivocally demonstrate the absence of experience (see Hurlburt & Schwitzgebel 2011, for discussion).

But the real rub is that even if DES could demonstrate the absence of certain experiences, PBS would still remained unthreatened, and necessarily so. For there is a sense in which pre-reflective self-consciousness in general is epistemically peculiar, in that it is defined in such a way that it cannot be discovered according to certain methods – i.e. precisely those that require the subject to reflect upon her experience.

In order to illustrate, let me offer a reorientation upon a famous passage from David Hume's *Enquiries*:

For my part, when I enter most intimately into what I call myself, I always stumble on some particular perception or other, of heat or cold, light or shade, love or hatred, pain or pleasure. I never catch myself at any time without a perception, and never can observe anything but the perception.

(Hume 1739–1740/1960: Book I, Part IV, §VI, p. 252)

Proponents of pre-reflective experience ought to claim that in a certain sense it is not surprising that when Hume enters "most intimately" into what he calls himself, he is thereby unable to observe himself. For on the view they typically espouse, acts of reflection such as these will necessarily fail to reveal the subject of experience as such (Legrand 2007a, p. 588). As Howell (2010) has recently noted, it is perfectly consistent with realism about selfhood to claim that the self is something that persistently evades our perception in some peculiar way. But note further that in the case at hand, realism about the self is maintained by positing a form of self-consciousness prior to and conceptually distinct from Hume's reflective act. If pre-reflective self-consciousness

exists, then it certainly eludes Hume's reflection. That is a definitional consequence. Still the question remains: does pre-reflective self-consciousness exist? By extension, the same applies to PBS. If PBS exists, then it certainly eludes the reflection of any potential DES subject. Still the question remains: does PBS exist? So far it seems impossible to answer such a question, and in absence of any ability to do so, it is hard to see why one should think that any description of consciousness that posits PBS is correct.

6. Explanatory descriptions

In the course of discussing his results, Schwitzgebel notes that four of his participants reported "discovering" a "holistic body-sense"; three of these four were initially inclined towards a sparse view; and of those three, one reported "a general sense of the position and disposition of his body, its posture, and its contact with things" (Schwitzgebel 2011, p. 110). He wonders:

Is this just a compelling theoretical idea that, once entertained, inclined these participants to invent experience to match it [...]? Or did this idea reflect a discovery of, and allow them to report, a subtle sort of background experience that others might easily miss? (Schwitzgebel 2011, p. 110)

If PBS is rightly called a form of pre-reflective experience, and if pre-reflective experience is epistemically peculiar in the sense claimed in the last section, then the answer to the second question must be negative. It does not follow, of course, that the answer to the first question must then be positive. But given the epistemic peculiarity of PBS, those who endorse the concept should be concerned to find some means of allaying the worry that it might be an invention. Indeed, the question serves to motivate an alternative characterisation of PBS. For we might ask (in a less sceptical voice): Might PBS be a theoretical posit, rather than a mere description?

Take the following observation by Merleau-Ponty:

I move external objects with the aid of my body, which takes hold of them in one place and shifts them to another. But my body itself I move directly, I do not find it at one place and transfer it to another, I have no need to look for it, it is already with me.

(Merleau-Ponty 1945/1962, p. 94)

If we read this as an illustration of PBS in bodily action upon the world, it is a short step from here to applying the insight in an explanation of how such action is possible. For instance, Zahavi writes of a problem one might face at least three times a day: "I wish to begin to eat, and so I pick up the fork. But how can I do that?" (1999, p. 92). He continues:

In order to pick up the fork, I need to know its position in relation to myself. That is, my perception of the object must contain some information about myself, otherwise I would not be able to act on it. (*ibid.*)

But this is not quite an explanation yet; one still wants an answer to the question: How does perception of the object contain information about the subject? Indeed, a candidate explanation only comes when PBS enters the picture: "As an experiencing, embodied subject I am the point of reference in relation to which each and every of my perceptual objects are uniquely related" (*ibid.*; *cf.*, Husserl 1952/1989, pp. 165–166). Gallagher delves further into the *explanandum*, though he provides largely the same explanation:

The fact that perception is perspectivally spatial is a fact that depends precisely on an implicit reference to the spatiality of the perceiving body. If one accepts the premise that sense perception of the world is spatially organized by an implicit reference to our bodily framework, the awareness that is the basis for that implicit reference cannot depend on perceptual awareness without the threat of infinite regress. To avoid the infinite regress one requires a pre-reflective bodily awareness that is built into the structures of perception and action, but that is not itself egocentric. (Gallagher 2005, p. 137)

The infinite regress is avoided by providing an explanation of the egocentricity of perception (necessitated by the capacity for bodily action) as grounded in PBS.

Also, recall that PBS was arguably on Husserl's mind when he described visual sensations presenting the same object as standing in systematic relations to kinaesthetic sensations of bodily movement. Taking some interpretive liberties, we can see the following question as stating the relevant *explanandum*: How can one experience an object as the same throughout a series of differing appearances? Husserl then seems to have an interesting explanation at hand:

consciousness of the identity of the form within the continuous change of its modes of givenness, which we are calling here its aspects, essentially presupposes the continuous unfolding, played out in the back-ground of attention, of the concomitant kinaesthetic sensation complexes. (Husserl 1952/1989, p. 136)

In unpublished writings Husserl adds a certain depth to the above, describing the unity of visual appearances as cyclically connected to an affecting series of kinaesthetic sensations. On the present line of thought, this cyclical connection is to be read as a further *explanans*:

the running off of the optical and the change of the kinaesthetic do not occur alongside each other, but rather proceed in the unity of an intentionality that goes from the optical datum to the kinaesthetic and through the kinaesthetic leads to the optical, so that every optical is a *terminus ad quem* and, at the same time, functions as a *terminus a quo*. (Husserl, Manuscript C 16, IV, 40b, as cited in, and translated by, Mensch 2001, p. 42, see also Husserl 1952/1989, pp. 62–63)

I hope to have taken just enough liberty to illustrate a potentially powerful role that phenomenological claims might play. In these cases, claiming the existence of PBS can be thought of as a *theoretical* posit serving in explanation of various aspects of mind. The virtue of conceiving of PBS in this manner is that it provides a framework within which the remarks cited provide a concrete basis for claiming that a description that posits PBS is correct. For inferring the existence of PBS in these various cases is an *inference to the best explanation*, in which "the phenomenon that is explained in turn provides an essential part of the reason for believing the explanation is correct" (Lipton 2000, p. 185). Peter Lipton offers a familiar example of such reasoning at work:

When a detective infers that it was Moriarty who committed the crime, he does so because this hypothesis would best explain the fingerprints, blood stains and other forensic evidence. Sherlock Holmes to the contrary, this is not a matter of deduction. The evidence will not entail that Moriarty is to blame, since it always remains possible that someone else was the perpetrator. Nevertheless, Holmes is right to make his inference, since Moriarty's guilt would provide a better explanation of the evidence than would anyone else's. (Lipton 2000, pp. 184–185)

The emerging picture of the phenomenologist *qua* detective places PBS within the arena of rational enquiry in a satisfactory manner. For even if PBS is epistemically peculiar, by advancing unabashedly theoretical explanations of unpeculiar phenomena, one can at least provide viable *reasons* for positing PBS.⁵

7. Conclusion

A positive result of the discussion is that it is possible to provide rational support for a description of conscious experience that posits PBS as an *explanans* in explanation of a given *explanandum*. But it ought to be noted that this initial result merely sets the stage

^{5.} Historically, a structurally similar form of argument has often been employed in philosophy, in the phenomenological tradition in particular. These "transcendental" arguments would begin from some indubitable feature of our experience and move to a stronger conclusion concerning the underlying structure that makes that experience possible, arguing that positing the hypothesised structure provides the only means of explaining that feature of our experience (Taylor 1978, p. 151). Transcendental argument is appropriate when a theory is concerned with the metaphysical necessity of its conclusions, but the bar can be set rather lower for explanations of phenomena that might only occur in the natural world. And this can be achieved by weakening the aim of such an argument to that of merely providing the best explanation of the phenomenon at hand. Interestingly, this opens up the possibility of empirically testing philosophical theories; this seems to be precisely the aim of at least some modern phenomenologists (see, e.g. Gallagher 2003b).

for further work: work dedicated to the task of showing that PBS positing explanations really are the *best* candidate explanations of the phenomena in question. In part this requires clarifying the explanatory work that PBS does; but in equal part this requires the articulation of competing explanations of the same *explanandum* phenomenon. Placing PBS firmly within the context of rational enquiry does not thereby serve to establish that the concept has firm application. Rather it facilitates the possibility of open-ended challenge and refinement in the advancement of future theories aiming to explain the deep structure of consciousness and self-consciousness. But that in itself is a positive result indeed.

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