

# The Devils in the Details: a Response to Kiverstein's 'Minimal Sense of Self, Temporality and the Brain'

## Abstract

*While remaining in broad agreement with the overall position developed and defended by Kiverstein, I identify and discuss what I take to be a number of problems with the details of the argument. These concern (a) the claim that a certain temporal structure to conscious experience is necessary for there to be a minimal sense of self, (b) the alleged ubiquitous presence in experience of a minimal sense of self, and (c) the claim that the distinction between the constitutive background conditions and the core realizer of a given experience is ultimately unsustainable.*

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There is no doubt that Julian Kiverstein's bold and incisive paper, 'Minimal Sense of Self, Temporality and the Brain' (this volume), makes important progress on the issue of how to understand the relationship between consciousness and the brain. Having said that – and notwithstanding my enthusiasm for, and my broad agreement with, the general character of the overall position – I want to ask questions of certain aspects of Kiverstein's analysis. In my view there are a number of problems in the details of the package on offer, and later on in this commentary I shall try to explain what they are. Before that, however, we should recall the key moves in Kiverstein's argument.

Kiverstein follows Rosenthal (1990/1997) in drawing a distinction between state consciousness and creature consciousness. However, and crucially for his argument, Kiverstein develops his own take on the latter of these categories, a take according to which creature consciousness is what a creature has during those times when it has "its own subjective perspective on the world" (p.63).<sup>1</sup> One dimension of this phenomenon is the first-person access that a creature with such a perspective has to its own conscious states. On Kiverstein's account, it is a necessary condition for such first-person access that the states in question include, as an intrinsic property, a basic form of pre-conceptual and pre-linguistic self-consciousness. This property, following other thinkers with phenomenological leanings, he calls *pre-reflective self-consciousness* (p.63). Although

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<sup>1</sup> Unless otherwise noted, all page references are to Kiverstein's paper, 'Minimal sense of self, temporality and the brain'.

pre-reflective self-consciousness comes in different modes (remembering, imagining, and so on), nevertheless all its modes share the property of being first-person in character, which means that the conscious states that are given to me in this way are *necessarily given to me as mine*. This pre-reflective ‘mine-ness’ requires only the immediate, noninferential awareness of the state as my own, and not the kind of reflective awareness in play on those occasions when I adopt the stance of an observer on my own mental life.

What consequences does this understanding of creature consciousness have for our conception of the neural correlates of consciousness? Kiverstein follows Block (2007) in drawing a distinction between the core realizer and the total realizer of a particular experience of a certain kind. The core realizer is that part of a neural representational system that distinguishes one conscious content from another. The core realizer of a particular experience of a certain kind will be sufficient for that experience only in the context of wider neural activity. Thus the total realizer will include all the neural structures that make up the core realizer plus all the neural structures that realize the background conditions necessary for the core realizer to function as such. According to Block, a further distinction can be made, between causally necessary background conditions (such as cerebral blood flow) and constitutive background conditions (such as the activation of the upper brainstem). With this conceptual backdrop in place, Kiverstein identifies *localists* as being those cognitive theorists who (a) take the neural correlates of consciousness to be the core realizers of particular states of consciousness, and (b) take the neural correlates of creature consciousness to be part of the (causally necessary or constitutive) background conditions that must be in place for the brain to realize particular conscious experiences. In contrast, Kiverstein identifies *holists* as being those cognitive theorists who take the neural correlates of creature consciousness to be part of the core realizer of a particular conscious experience. On the holistic view, state and creature consciousness are conceived of in a way that rules out the possibility of investigating their neural basis separately.

Kiverstein argues that his view of creature consciousness, as sketched above, mandates holism. Creature consciousness “consists in the possession of a minimal sense of self” (p.66), and a minimal sense of self is an intrinsic part of every conscious state. It follows that the neural basis of that minimal sense of self, and thus of creature consciousness, cannot be relegated to a mere causal background condition. This suggests that the neural correlates of creature consciousness ought at least to be counted as constitutive background conditions. But, Kiverstein argues, the distinction between the constitutive background conditions and the core realizer of a given experience is in fact unstable in the face of leading theories in the area that emphasize the interaction between these two phenomena. Kiverstein’s claim is that because of the necessity of this interaction, the so-called constitutive background conditions are “just as necessary for the occurrence of an experience with a particular content as the activity in the brain areas that constitute the core realizer” (p.68). If this is the case, however, we have no reason to resist the thought that the neural activity of creature consciousness is part of the core realizer of a given experience. That completes the argument for holism.

The final part of the Kiverstein jigsaw is the claim that for conscious states to include pre-reflective self-consciousness (a minimal sense of self), it is *necessary* that those states have an inherently temporal character – it is “how consciousness must of necessity be structured in order for conscious states to include pre-reflective self-consciousness” (p.68). Drawing on phenomenological thought (specifically the work of Husserl as developed by Gallagher 2005), Kiverstein argues that each instance of our experience presents us with temporally extended objects – objects that are functions of the recent past, the present, and the near future. The experience of listening to a tune provides a nice example of this idea. Hearing a note as part of a tune requires that the previous notes in the melody are somehow present in the current moment, and that the future notes are somehow anticipated. Given this temporal structure, we can think more precisely about what we *retain* in each moment of experience and about what we *anticipate*. According to Kiverstein, from moment to moment the entire (past-present-future) temporal character of the previous phase of experience is retained. Significantly, this indicates that “I will, from moment to moment, be simultaneously aware both of what my experiences present but also of my ongoing experience” (p.69). In addition, I anticipate not merely “what is about to happen, but what is about to happen to *me*” (p.69). It is here that, according to Kiverstein, we see the necessity of the temporal structure of experience for the minimal sense of self. The full picture is now in place. Creature consciousness intrinsically involves a minimal sense of self. That minimal sense of self is part of every experience. Thus, the neural processes responsible for creature consciousness are part of the core realizer of every particular conscious experience. Since the minimal sense of self is, at least in part, a consequence of the complex temporal structure of experience, any theory of the neural correlates of particular conscious experiences must explain the neural basis of experiences with a complex temporal structure.

This is a powerful and attractive story. So where are the aforementioned problems? Let’s start with the claim that the temporal character of conscious experience, as described by Kiverstein, is necessary for there to be a minimal sense of self. It seems to me that not quite enough has been said to substantiate this claim. The idea that, as far as I can tell, is driving Kiverstein here, is the phenomenological observation that the past and future dimensions of present experience – its retentional and anticipatory (protentional) aspects – involve what Gallagher, in Husserlian mode, characterizes as a double intentionality. Thus: “[my] experience of the passage of a melody is at the same time a non-observational, pre-reflective awareness of my own flowing experience” (Gallagher 2005: p.193). This seems right. However, what precisely does it show? Consider the plausible claim, made by Gallagher and endorsed in the following words by Kiverstein, that “if someone were to be deprived of [protention] they would feel like all of their conscious states as they unfolded in the future were imposed on them from the outside” (p.69). Why is this? Because protention is not just a pre-reflective impression of what will happen, but also a pre-reflective impression of what will happen *to me*. In other words, what explains the phenomenon identified by Gallagher is that the protentional aspect of the temporal structure of experience intrinsically involves Kiverstein’s minimal sense of self. Under these circumstances, it doesn’t seem right for Kiverstein to say that protention is necessary for a minimal sense of self. Protention can only be distinguished

from a mere impression of what will happen because, as a phenomenon, it already involves that very sense. I think that a similar point could be made about retention. Having made these remarks, I hasten to add that even if they are right, they do not on their own undermine Kiverstein's specific conclusion in this area, namely that in order to explain the neural correlates of particular conscious experiences we must explain the neural basis of experiences with a complex temporal structure.

Let's turn now to the alleged ubiquitous presence in experience of the minimal sense of self. Kiverstein holds that creature consciousness is to be identified with pre-reflective self-consciousness and that all pre-reflective conscious states are characterized by a minimal sense of self. Thus he says that "prior to reflection my conscious states are *always* already given as mine" (p.65, my emphasis) and (as we have seen) that "creature consciousness *consists in* the possession of a minimal sense of self" (p.66, my emphasis). However, there is a subtly different claim in the vicinity here with which Kiverstein occasionally seems to flirt, namely the claim that creature consciousness is to be identified with the *capacity for* enjoying pre-reflectively self-conscious states characterized by a minimal sense of self. Kiverstein seems to endorse this second view when he claims that a "creature is conscious when *it can* undergo states of mind that have first-person givenness and therefore include a minimal sense of self" (p.65, my emphasis). The importance of this distinction is that the former claim excludes the possibility that creature consciousness may be manifested as pre-reflectively conscious states that do not include a minimal sense of self, whereas the latter claim allows for such a situation, just so long as the creature in question has the *capacity* to undergo other pre-reflective conscious states that *do* include a minimal sense of self.

The choice between these options comes to the fore in Kiverstein's reply to the objection that not all the conscious states of a creature need involve that creature having "a sense of himself as being in some way affected by these states" (p.64). Kiverstein responds to this complaint by concentrating on the case of a proprioceptive experience in which I form the thought that I am raising my arm on the basis of a feeling of my arm raising. He observes that this thought is immune to errors of misidentification, and explains this fact by way of the first-person givenness of my experience of raising my arm. This first-person givenness pre-empts the need for any act of identification, and thereby blocks the possibility of misidentification. Now, as far as I can tell, this analysis may be right for experiences that have the form of the thought that Kiverstein describes. Of course, the objection does not claim that conscious states like *that* – states whose surface phenomenological description already mentions "I" and "my" – do not involve a minimal sense of self. It claims that there exist conscious states that do not involve a minimal sense of self. Another way to put this point is to note that Kiverstein's reply would be decisive against his critic only if the tabled objection was that no conscious states ever involve a minimal sense of self. The objection, however, is less strident, and correlatively more plausible. Consistent with the capacity-oriented claim about creature consciousness mentioned above, the present critic can allow for the existence of pre-reflectively self-conscious states that feature a minimal sense of self. And, as mentioned already, the arm-raising experience discussed by Kiverstein may well be one such case. What the present critic denies, however, is that all conscious states are like that. Because

Kiverstein holds that creature consciousness is to be identified with pre-reflective self-consciousness and that all pre-reflective conscious states are characterized by a minimal sense of self, his account cannot make room for such states.

So can we find any examples of conscious states that do not involve a minimal sense of self? If we can, then creature consciousness cannot consist in the possession of a minimal sense of self. Here is an analysis that answers in the positive, and which betrays my own phenomenological heritage. The Heideggerian in me denies that pre-reflective consciousness is always subject-object in form, a denial that sets me against Kiverstein's claim that creature consciousness is what a creature has during those times when it has its own subjective perspective on the world. To explain: Heidegger argues that smooth coping (hitch-free skilled activity) involves a form of awareness in which the contrast between subject and object plays no part. This notion of awareness, which Heidegger calls *circumspection*, is identified in the following remark: "When we enter here through the door, we do not apprehend the seats, and the same holds for the doorknob. Nevertheless, they are there in this peculiar way: we go by them circumspectly, avoid them circumspectly... and the like" (Heidegger 1927/1982: p.163). The idea here is that the human agent has no conscious recognition of either the doorknob that it turns or of the seats around which it walks *as objects*, that is, *as independent things with determinate properties*. Similarly, to use Heidegger's most famous example, while engaged in hitch-free hammering, the skilled carpenter has no recognition of the hammer, the nails, or the workbench as independent objects (Heidegger 1927/1962: pp.98-99). During smooth coping, then, the carpenter's equipment is a *transparent* feature of his phenomenal experience, which means that the object-concept is inappropriate for describing that experience.

This is only half the Heideggerian story, however, and where the analysis becomes acutely relevant to our present concerns. Heidegger's complementary claim is that during, for example, skilled carpentry, not only are the hammer, nails, and workbench not part of the carpenter's phenomenal world, *neither, in a sense, is the carpenter*. The carpenter becomes absorbed in her activity in such a way that she has no awareness of herself as a subject over and against a world of objects. So, in the domain of smooth coping, there are, phenomenologically speaking, no subjects and no objects; there is only the subject-less experience of the ongoing task. What this suggests is that there are some examples of conscious arm-moving, which involve an awareness that cannot be given the Kiverstein treatment. In other words, the pivotal claim that every pre-reflective conscious state is characterized by a minimal sense of self is false. Kiverstein's most natural reply here would be to claim that the Heideggerian analysis should be understood as denying the phenomenological presence in smooth coping of a maximal rather than a minimal sense of self. If all Heidegger is claiming is that smooth copers are not reflectively self-conscious, then, of course Kiverstein and he are not at odds. I think, however, that Heidegger must have both senses of self in his sights, since he explicitly distinguishes the subject-less (and object-less) flow of smooth coping from cases in which, due to (for example) disturbances in skilled activity, what we might think of as proto-subjects (and proto-objects) emerge out of that flow (for discussion, see Wheeler 2005: pp.138-144). If minimal selves appear anywhere in Heidegger's phenomenological framework, they appear as the proto-subjects present in these sorts of disruptions.

Another example of pre-reflective consciousness that, to me anyway, seems to be devoid of any minimal sense of self, is to be found in some examples of spontaneous crowd consciousness. Two days ago in the Edinburgh derby, after only ninety seconds of football, Hibernian took the lead at Easter Road against Hearts. The crowd (well, most of it anyway) exploded as one joyous unity. At that moment, was my conscious experience characterized by a minimal sense of self? I don't think so. The ephemeral public mood of celebratory elation that characterized the pre-reflective experience of that moment seems to have been exhaustive of the experience. Of course, from the perspective of a certain kind of analysis (e.g. the location of the relevant neural states in my brain), there may well have been an experience there that was identifiable as mine, but that is not enough for Kiverstein's purpose. Kiverstein needs the minimal sense of self to be *an aspect of the phenomenological character of the experience*, not merely a hidden feature of its underlying neural structure. Notice that neither this example of the absent minimal sense of self, nor the preceding one, may be undermined by the thought that they fail to explain immunity to errors of misidentification. Both experiences achieve such immunity on the grounds that, within them, there is no identification of the experience with any individual subject, so there certainly cannot be errors of misidentification. The possibility of such error is pre-empted, although in a way different from that exhibited by Kiverstein's arm-raising example. Indeed, in order to make conceptual space for such an identification – one that might conceivably go wrong – we are forced to impose a subject-object structure on the experience in question. In so doing, we misrepresent the fundamental nature of that experience as it happened at the time. In the end, then, Kiverstein's claim that creature consciousness is to be identified with a minimal sense of self is, I think, open to reasonable doubt.

Finally I shall turn to a worry that remains, even if the bridge from creature consciousness to a minimal sense of self can be repaired. A key part of Kiverstein's case for holism is the claim that the localist-friendly distinction between the constitutive background conditions and the core realizer of a given experience is unsustainable. The argument here is that because of the necessity of interaction between these phenomena, the so-called constitutive background conditions, which include the neural correlates of creature consciousness, are "just as necessary for the occurrence of an experience with a particular content as the activity in the brain areas that constitute the core realizer" (p.68). As it stands, this argument is too quick. For even in the face of interactions between these phenomena, what would preserve their separability would be an identifiable difference in functional contribution. Interestingly, Kiverstein himself suggests that just such a difference may exist. He argues that the neural correlates of creature consciousness may well coincide with the neural correlates that explain the difference between conscious and nonconscious processing of a stimulus (p.67). If this is right, then those neural states and processes explain something that may remain the same across variations in the contents of consciousness (pp.66-67). By contrast, the neural correlates of the core realizer will be those that explain such variations. This functional difference seems to me sufficient to maintain the distinction between constitutive background conditions and the core realizer. So even if creature consciousness is, in some way, part of every conscious state, there is no good reason yet to think of it as anything more than a constitutive background

condition. Under these circumstances, and pace Kiverstein, localism does not necessarily collapse into holism.

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