
Explaining Subjective Character: Representation, Reflexivity, or Integration?

A Commentary on Kenneth Williford

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While Williford puts forward a self-reflexive account of subjective character, which identifies the subject of experience with episodes (or the stream) of consciousness, an alternative account is defended here that identifies the subject of experience with the whole organism. On this latter approach, a mental representation is conscious if its neural substrate is integrated into the overall neuronal state underlying the conscious state of the organism at that time. This approach avoids an important problem arising for Williford's theory, namely the individuation of episodes. This problem is elaborated in greater detail.

Keywords

Consciousness | Integration | Phenomenal character | Representationalism | Subject of experience | Subjectivity

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1 Introduction

The starting point for this commentary on Williford's article is the *commitment* to subjective character as a defining feature of consciousness. Subjective character is what *makes* a conscious experience conscious, i.e., what *all* conscious experiences have in common in virtue of which we call them conscious. [Kriegel \(2009, p. 1\)](#) has offered a distinction between the *qualitative character* and the *subjective character* as two

important aspects of any conscious experience. If you have a phenomenally conscious sensation of red, then there is something that it is like for you to have it. On the one hand, having this experience feels like *this* (where *this* quality distinguishes it from feeling a sensation of pain, say). On the other hand, it feels like something *for you* (i.e., it is subjective *in the same sense* that all of your other conscious experiences are sub-

jective). Qualitative character is the *distinguishing* mark of conscious experiences with regard to each other; subjective character is the *common mark* of all my conscious experiences. This latter aspect has also often been referred to as the me-ishness, ipseity or mine-ness of consciousness (Block 1995; Zahavi 1999).

Williford recognizes that, sadly, not all philosophers theorizing about consciousness share this commitment to subjective character, and that some formulations of it in terms of mine-ness are misleading in giving rise to objectionable implications about essential entities (Metzinger 2011). But for the purposes of this commentary we can leave aside such controversies and instead start with a shared commitment to this feature, on which this commentary will exclusively focus.¹ As a constraint on a theory of subjective character, Williford maintains that it has to respect (1) the relational structure of consciousness, and (2) the Humean intuition that one of the relata, the subject, remains somewhat invisible and is at least not constituted by a special (additional) entity. His solution, in short, is to peacefully combine these two intuitions by *identifying* the subject with (an episode of or) the stream of consciousness, which is itself reflexively self-aware. A further claim is that this account is supposedly “compatible with physicalism” (Williford this collection, p. 1). I do not address this aspect of Williford’s rich paper in this commentary, mostly for reasons of space but also because I think that the putative truth of physicalism should not put any a priori constraints on a theory of consciousness.

¹ One might argue that this move is already problematic since it looks like a *petitio principii*. But I simply take it as an analysis of Nagel’s phrase that *there is something it is like for the organism* to experience something red, say. As a characterization of phenomenal consciousness this is almost unanimously accepted in the field. What it picks out according to the present analysis is a variant aspect that differs in different experiences (qualitative character), and an invariant aspect that remains identical across different experiences (subjective character). I do not have enough space here to argue in detail for this analysis. A further reason for distinguishing both aspects, subjective and qualitative character, is the phenomenal observation that we can become *conscious of ourselves as the identical subject* in contrast to the constantly changing stream (or ensemble) of conscious representations. Here, the qualitative differences of the multiple representations we have at a time do not matter. What matters here is that they are related to myself such that I can call them and experience them as mine (cf. Schlicht 2011).

My commentary is thus structured as follows. In the [second](#) section, I will recapitulate Williford’s take on subjective character and point to problems with his identification of the subject with the stream (or episodes) of consciousness. In the [third](#) and [fourth](#) sections, I will present an alternative way of conceptualizing the subject in the context of a theory of consciousness that also satisfies the constraints mentioned above. On this alternative view, a mental representation is conscious (i.e., it exhibits its subjective character) if it is integrated in the right way into the overall conscious state of the organism. This overall state includes representations of the state of the organism. By way of integration, all *conscious* representations are something *for* the organism that is identified as the subject of experience. This alternative, which is an instance of an integration-theory, has the advantage both of bypassing the problems that seem to beset Williford’s account and of being not only compatible with but also supported by the best empirical hypotheses about consciousness currently available. I will sketch an argument for this view and attempt to answer possible objections to the premises of this argument.

2 Williford on subjective character

Williford’s aim is to characterize the subjective character of consciousness in a way that accounts “for both the Humean intuition that the subject-relatum is, in some sense, invisible and that, nevertheless, consciousness has a subject-object relational structure that is phenomenally manifest and non-inferentially knowable” (this collection, pp. 10-11). There are three constraints on an account of subjective character, according to Williford: (a) conscious experiences are relational in having both a subject- and an object-pole; (b) the subject-pole is not constituted by some additional, irreducible, or otherwise special entity; (c) the subject-pole must be something that is nevertheless manifest in consciousness, not hidden from it.

Note that it is not an option for someone taking subjective character seriously to agree that phenomenal consciousness is relational, in-

volving a subject-pole, but at the same time holding that this pole is forever “*hidden*” (p. 11). This does not work because such an account could not explain subjective character. After all, we consider subjective character as real *only* because it supposedly shows up phenomenally: I experience my conscious states as *mine*.²

Williford’s commitment to a subject (subject-pole) rules out the possibility that experiences may be free-floating entities, not being enjoyed by *anyone*. Phenomenal consciousness is supposed to be relational through-and-through, directed *at* some object and existing *for* some subject: “anything that phenomenally appears, appears to someone or something” (p. 9).³ In general, Williford attempts to capture both the intentionality and the subjectivity of consciousness in the slogan that every experience involves the “appearance of something to something” (p. 9), where the latter refers to subjectivity. He leaves the notion of “*appearing* or of *phenomenally manifesting* undefined” (p. 10), but in order for what he says to make sense we have to take it to be just another way of saying that something is *phenomenally conscious*: it is “just the appearance to/in consciousness of something” (p. 10).

In order to meet the constraints he set for himself, Williford identifies the subject with the stream of consciousness or with (some complex or rich) episode of consciousness (p. 10). This identity claim then leads to the situation that the subject-pole of the consciousness-relation *appearing* (or being manifest) in the conscious episode is the episode itself. The subject-pole is thereby manifest, i.e., consciously experienced, but not separable as an entity from the conscious episode in question, and thus it is—in a sense—invisible. But it is only invisible in the sense that there is no additional entity that ac-

counts for the subject-pole. In order to meet the constraints mentioned above, Williford therefore defends “the view that consciousness is self-manifesting” (p. 10), i.e., an episode or stream of consciousness *appears to itself* no matter what else is manifest to consciousness (some perceived object, say).

Partly because Williford subscribes to the Humean intuition that we do not find a self, or a “self-entity, me-haecceity, me-ish quale, or subject-relatum” (p. 10) if we turn to our stream of conscious experiences, he is led to the identification of the subject-relatum with the stream of consciousness itself. Although the conscious episode appears itself *in* the episode, consciousness is self-reflexive, yet not self-representing. The relevant difference between an unconscious and a conscious episode is not due to some form of representation. Rather, the conscious episode contains an internal relational (intrinsic) property that is responsible for the episode’s being *acquainted with itself*.⁴ Subjective character is thus supposedly “the self-acquaintance of every instance of consciousness” (p. 1), which these instances exhibit in virtue of “some internal relational property” (p. 1). The subject of experience, being *identical* to the episode of consciousness, is self-acquainted. But although consciousness is self-reflexive, the claim is not that a mental episode becomes conscious through an act of reflection directed at it (p. 10). This is an impossible path when it comes to explaining subjective character, since an act of reflection presupposes that what it reflects upon is already *mine* in the relevant sense to be explained (Frank 2007; Zahavi 1999). Reflection can discover but not bring into being a self-referential conscious state.

Now, the stream (or episode) of consciousness exhibits subjective character in the sense that the stream itself is manifest within the stream so that the relationality constraint is met, although no additional entity need be introduced in order to play the subject-role. Therefore, the Humean invisibility-constraint is met as well. This is more or less the positive

² One way to put this with respect to sensations like hunger is to say that, since they are related to me in such an unmediated sense, it is impossible to be mistaken about the subject undergoing such sensations (Shoemaker 1968).

³ This claim is defended especially in opposition to what Williford calls F-theories, or varieties of first-order representationalism such as Tye’s (1995) PANIC-theory, which arguably neither accepts nor explains subjectivity so understood. Higher-order and same-order accounts at least accept this feature of consciousness, which they—mistakenly—attempt to explain in terms of representation.

⁴ Thus, the property of being conscious (and thus subjective) is not bestowed upon the episode by some external property, like a higher-order thought directed at (or representing) it (Rosenthal 2005).

story as far as I have understood it. The main philosophical problem for Williford's account is to formulate criteria as to how to individuate an episode. This problem leads to a dilemma for his account that is spelled out in more detail below.

If we follow Williford and identify the subject with complex conscious episodes (or even *the whole* stream of consciousness), then subjective character only seems to arise for complex episodes, and not for any of the episode's parts or elements: "[t]he episode is a unified whole, the differentiated qualities and objects appearing in/to it are like its parts [...]" (pp. 10-11). Since he emphasizes that all episodes have parts (*ibid.*), I take it that a single sensation of red, say, consequently does *not* count as an episode, because it can hardly be separated into parts; then it can instead always appear only as an element of an episode which is in turn a "unified whole". On the other hand, Williford also emphasizes that, trivially, everything always also is an improper part of itself. On this reading, a single sensation of red *could* be an episode. This gives rise to the following options regarding the individuation of episodes that can be put in terms of a dilemma:

1. *If a single sensation of red is too simple to count as an episode*, then all that Williford's theory can explain is why the complex episode as an emergent whole (having single experiences as its parts or elements) is conscious. It *cannot* explain what makes an individual element of this whole episode (or stream), a sensation of red say, conscious. But the varieties of representationalism (which he criticizes) aim to explain exactly this feature of consciousness. A problem with this first horn of the dilemma is thus that we need to answer the question whether or not such single sensations can be conscious independently of being an element of a larger episode.
 - a) *If individual sensations can be conscious independently*, then the question arises as to whether they can be conscious *without* thereby exhibiting subjective character (given subjective character only arises on

the level of whole episodes). This is not what Williford should accept since he takes subjective character to be a defining feature of consciousness; there is no consciousness without subjective character. So if an individual sensation of red could be conscious then it could be so only by exhibiting subjective character. This seems to lead us to Zeki's theory of "micro-consciousness" (Zeki & Bartels 1998; Zeki 2007) according to which every individual node of a perceptual system (visual, auditory etc.) can generate an "atom" of consciousness independently. This is an extreme version of what Bayne (2010) calls an "atomistic" approach to consciousness, standing in contrast to more "holistic" approaches:

"Theorists that adopt an atomistic orientation assume that the phenomenal field is composed of 'atoms of consciousness'—states that are independently conscious. Holists, by contrast, hold that the components of the phenomenal field are conscious only as the components of that field. Holists deny that there are any independent conscious states that need to be bound together to form a phenomenal field. Holists can allow that the phenomenal field can be formally decomposed into discrete experiences, but they will deny that these elements are independent atoms or units of consciousness." (Bayne 2010, pp. 225-226)

The problem with such atomistic approaches is really the phenomenon of the unity of consciousness, i.e., that such individually conscious units would need to be bound together to a much larger all-encompassing unified "phenomenal field", as Bayne puts it, in order to account for what we actually experience. But then we should expect there to be a *mechanism* responsible for such phenomenal binding, a mechanism that we also should expect to break down occasionally under certain circumstances; but there is no evidence for

such a mechanism. The phenomenal unity of consciousness seems to be a deep feature of consciousness just like subjective character, in the sense that it cannot break down and that phenomenal consciousness cannot occur without it. I agree with Bayne's point here (cf. Schlicht 2007), and I think that Williford would not be prepared to take Zeki's route either. At least there is no indication in the text that would support this reading. Alas, Williford also sets aside the important issue of the unity of consciousness, which arises given the unresolved problem of providing criteria for the individuation of episodes.

- b) So we are left with the alternative that *individual sensations cannot be conscious independently*. For an individual element to become conscious (and to exhibit subjective character) it must then be *integrated* into a larger (cumulative) episode. What's needed then is a theory (and a mechanism) explaining how such integration into an episode takes place. However, then we are left with an alternative view regarding the question of what is responsible for a representation's being conscious, namely some kind of integration-theory. In fact, that is the path I will recommend (and elaborate in more detail) below in section 3. The general idea is that phenomenally-conscious representations are those that are adequately integrated into a global state (we may call it an episode). My worry with regard to Williford's account is simply that once we have such an integration-account, there is no need for his additional story in terms of self-reflexivity in order to explain subjective character. Since subjective character is (taken to be) a defining feature of conscious experience, an account that informs us about how individual sensations become conscious will also inform us about how they acquire subjective character: through integration.
2. But that's not the end of the story. Williford simply could say that a sensation of red may

be a conscious episode. So far, we have discussed the problem of individuating episodes on the assumption that a single sensation of red cannot count as an episode. Now we have to discuss the consequences of the assumption that *a single sensation of red may count as an episode*. This leads to two further possibilities.

- a) One could accept such minimal episodes despite the fact that this concession gives rise to a multiplicity of (streams and consequently) conscious subjects. Although it's metaphysically (somewhat) extravagant, this is a perfectly coherent position to take. Indeed, it seems to be akin to Strawson's theory of the self, according to which a self lasts only as long as an individual state (or episode) of consciousness (Strawson 1997). But this view flies in the face of experience. For one thing, it is inadequate to explain an important aspect of consciousness, namely what we may call, following Kant, the *(empirical) consciousness of the identity of oneself as subject*: "I am [...] conscious of the identical self in regard to the manifold of the representations that are given to me in an intuition because I call them all together *my* representations, which constitute *one*" (B134). What he means is that, at least in non-pathological cases, I can become conscious of myself *as* the single, (synchronically as well as diachronically) identical subject vis-à-vis my diverse experiences. I *never* identify myself with one or many of my conscious representations (or episodes for that matter). Rather, I distinguish myself from them *as the subject* who has them when I self-ascribe them. And this empirical consciousness of an identical subject is possible, according to Kant, *because* all my *conscious* experiences are already self-related. I can already call them *mine* because they exhibit subjective character simply by being phenomenally conscious. Kant, famously and notoriously, tried to account for this consciousness of self by simply postulating a *transcendental unity* of apperception in which this is sup-

posed to originate. If Strawson's view were correct, then Kant would presumably reply by pointing to a natural, yet implausible consequence: "I would have as multicoloured, diverse a self as I have representations of which I am conscious" (CpR B134). Accepting this horn of the dilemma therefore has the consequence that we would now need a story that helps us make sense of how the subject of the sensation of red is related to the subject that is identified with an auditory sensation of a loud sound, etc. In effect, this would lead to a binding problem for the multitudinous "subjects" of experience, since in my view, we cannot be content with a multiplicity of conscious subjects. I also think that Williford might not be satisfied with such an outcome, since he never entertains the possibility of multiple subjects in his essay.

- b) Therefore—again, on the hypothesis that a single sensation of red counts as an episode—one could argue that *the multiplicity of conscious episodes has to be overcome in favor of one (unified) stream of consciousness*. This calls, again, for an integration mechanism that produces such a unity. Though I can understand why one would now identify this resulting integrated single stream of consciousness with the subject of experience, I don't see any motivation to identify the episode "single sensation of red" with a subject of experience, if a more complex combination of episodes is needed anyway.

I conclude that the problem of individuating episodes either leads to the acceptance of implausible views like Zeki or Strawson's theories of consciousness and self or to the need for an integration account that explains how individual elements are combined into the one global conscious experience. The claim I would like to put forward is that once we have such an integration account, Williford's proposal becomes superfluous, because what it is intended to explain is then already explained by the integration account.

3 Integration vs. representation

When the aim is to provide an account of the difference between a representation's being phenomenally conscious and it's being unconscious many philosophers are drawn to some form of *representationalism*. This is motivated in part by the prospect of reducing the problem of consciousness to the problem of intentionality or *representation* (Tye 1995; Dretske 1995; Rosenthal 2005; Lycan 1996; Metzinger 2003; Kriegel 2009; Kriegel & Williford 2006). But many of those who are dissatisfied with a representational criterion argue that the difference is due to some sort of *integration* (Dehaene 2014; Van Gulick 2004; Edelman & Tononi 2000; Damasio 2010; Metzinger 1995; Kant 1999; Schlicht 2011). Such integration may eventually result in a higher-order or more complex representational state. In that sense, the two accounts do not mutually exclude each other. But they give different answers to the question of what is responsible for the representation exhibiting the feature of being conscious. To put forward both a representational condition and an integration mechanism would amount to wearing a belt as well as suspenders. Williford's paper demonstrates that other theories are also possible. He favors self-reflexivity as the core feature a representation must exhibit in order for it to be conscious.

In the first part of his paper, Williford scrutinizes all dominant varieties of representationalism, especially with respect to their explanatory power regarding the subjective character of conscious experiences. His case against first-order, higher-order, and same-order or self-representationalism is solid, and I have nothing to add in this regard (cf. also Schlicht 2008b; Vosgerau et al. 2008).⁵

The basis for answering the question as to which conditions have to be met by a single sensation of red in order for it to be conscious and subjectively experienced is the observation

⁵ I disagree with respect to what Williford calls P-Theories, according to which a "privileged object" is represented which makes all the difference between conscious and unconscious representations. Williford interprets Damasio's theory in this way, but although various representations (of the body especially) play an important role in Damasio's theory (as in most other theories), this is not the whole story (see fn. 7).

that the organism in question is already conscious in the creature-sense. This general consciousness (or state of vigilance) admits of degrees (from deep coma to wakefulness) and is one of the conditions for being able to enjoy a sensation of red at all (Dehaene et al. 2006). Empirical evidence points to the assumption that the neural structures in the brain supporting this state contain the relevant structures monitoring and regulating the homeostatic balance of the whole organism. Damasio (1999, 2010) calls these structures “proto-self”-structures, the biological forerunner of that which we eventually experience as a sense of self. He assumes that the brain can only perform these functions of monitoring and regulating if the overall state of the whole organism is represented in the brain.

In addition to representations of the organism, the brain is assumed to produce representations of (objects in) the external world. Given the limited capacity of conscious perception and memory systems, such representations stand in competition (Koch 2004). The basic idea of integration-theories is that some of these competing representations, like a sensation of red, are conscious because they are integrated into a more global state that also contains the structures responsible for creature-consciousness. Van Gulick (2004) has sketched such an integration-theory, based on ideas already to be found in Metzinger (1995):

The basic idea is that lower-order object states become conscious by being incorporated as components into the higher-order global states (HOGS) that are the neural and functional substrates of conscious self-awareness. The transformation from unconscious to conscious state is not a matter of merely directing a separate and distinct meta-state onto the lower-order state but of “recruiting” it into the globally integrated state that is the momentary realization of the agent’s shifting transient conscious awareness. (Van Gulick 2004, pp. 76-77)

In other words, a single sensation of red is consciously experienced if the neural activation

pattern supporting this sensation is integrated in the right way into the neural basis representing the overall state of the organism, the “dynamic core” in Edelman’s words (Edelman & Tononi 2000).⁶

Importantly, the integration mechanism (which is what has to be determined empirically in this framework)—synchronous oscillations, say—is not only responsible for producing a coherent single experiential state of the organism; it also thereby conveys subjective character to the integrated individual representations. If this idea is combined with Damasio’s (1999) notion of proto-self-structures, then integration facilitates a strong connection between the substrate of an individual sensation (of red, say) and the biological structure representing the organism in the brain.⁷ Of course, just like on all other theories, the hard problem is not addressed head-on, i.e., it is not explained *why* activation of these structures feels like something at all. All that can be provided (at this stage anyway) is a coherent story of how all these aspects hang together. But one advantage of the present integration-account is that by establishing a connection between the organism (as represented in the brain) and its object-representations we can make sense of the important fact that all conscious representations feel like something *for the organism*. The organism provides, as Damasio puts it, a “haven of stability and invariance” (1999, p. 142, p. 153; see also Metzinger 2003, p. 161), i.e., just what we need in order to account for subjective character. For remember that subjective

6 Another way to think of this is along the lines of the “Global Neuronal Workspace Model” in which attentional mechanisms determine which of the neural coalitions are integrated (Dehaene et al. 2006). But means other than attention are possible.

7 Williford discusses Damasio’s theory under the label of a P-Theory as a variety of representationalism and finds it wanting. Of course, representations of various sorts, especially of the organism, play an important role in Damasio’s theory (as in many other theories). But I do not share Williford’s interpretation that it is these (special) representations as such that are responsible for consciousness. Various representations (or maps, as Damasio also calls them) have to be integrated in the right kind of way in order for there to be something it is like for the organism. Therefore, I do not consider Damasio’s theory a version of representationalism since there, the mechanism responsible for consciousness is not representation but integration of body representations with object representations via recurrent activations in so-called “convergence zones” (Damasio 1994, p. 95-96, 162).

character is the feature that remains stable across different representations, while qualitative character is the feature that distinguishes different representations from each other. So in order to get an account of subjective character started, we have to look for the point of “*maximal invariance of content* in the conscious model of reality”, as Metzinger (2003, p. 134) puts it. Metzinger agrees that this invariance is most likely due to the organism and its bodily structures represented in the brain, since it is invariance (or maintenance of homeostatic balance) that keeps the organism alive. Another advantage of this view is that it does so without introducing a questionable new entity and by avoiding Williford’s phenomenologically counterintuitive claim that the stream of consciousness should be identified with the subject of experience. In this commentary, I cannot argue in detail for this positive alternative but hope that these sketchy comments give the reader a general idea of what it aims at. Since I am dissatisfied with Williford’s identification of the subject of experience with the stream or an episode of consciousness, let me now finally turn to an argument for a different conceptualization of the subject.

4 The subject as organism

My alternative claim is that we should simply identify the subject with the organism. This section is an attempt to support this bold claim. The premises of the argument focus on analyses of the structures of phenomenal consciousness and intentionality:

Premise 1 (phenomenal consciousness):

Phenomenal consciousness is characterized by there being something that it is like *for a subject* to be in that state. In this minimal sense, consciousness is relational and requires the assumption of a *subject-pole* of experience.

Premise 2 (intentionality):

The structure of intentionality is such that a *subject* is directed (via some psychological act or attitude like believing, desiring, perceiving etc.) at a content, object, or state of affairs. Inten-

tionality is quasi-relational since at least the *subject* must exist, although the intentional object need not exist.⁸

Premise 3 (subject identity):

The subject that is intentionally directed is *identical* to the subject for whom there is something that it is like to be in a given mental state.

Premise 4 (embodied cognition):

Many intentional attitudes (like perceiving, grasping, emoting) are *embodied* and can be ascribed only to an embodied agent, i.e., to the whole organism.

Conclusion:

The *subject* for which there is something it is like to be in a given mental state and the *subject* that is intentionally directed at a content or object is the *organism*.

4.1 Elaboration of the premises

Premise 1: Phenomenal consciousness

First of all, it is interesting to note that Nagel’s initial characterization of consciousness in terms of *there being something that it is like* is already concerned with *the organism* as the entity *for which* there is something that it is like: After having noted the diversity of beings capable of conscious experience which may lead to very different kinds of conscious experience, Nagel argues that “no matter how the form may vary, the fact that an organism has conscious experience *at all* means, basically, that there is something it is like to *be* that organism, [...] something it is like *for* the organism” (1974, p. 436). So, given that the philosophical community seems to have agreed to refer to Nagel’s slogan in order to characterize phenomenal consciousness in the first place, they should seriously consider Nagel’s talk of the organism as the subject of experience. But apart from this ob-

⁸ A reviewer pointed out that different thinkers had different opinions about *what* is intentionally directed: the mental state, the psychological act, or the thinker etc. As will become clear below, I do not share the view that a mental state is itself directed, but favor the view that a creature of some sort is directed at something *via* an act or attitude. A great advantage of this view is that such attitudes are not limited to mental states like beliefs and desires (as traditionally held), but it also allows also for motor intentional attitudes like grasping or holding etc., i.e., essentially bodily ways of being directed (premise 4). For details see Schlicht (2008a).

servation, all that is stressed in the first premise is the relational character of phenomenal consciousness, much in the sense of one of the commitments defended in Williford’s paper. The reasons for holding this are mainly phenomenological: it simply appears that way. And we are all aiming at a theory of why this is so. Williford’s elaboration of the relational structure of consciousness in terms of the genitive and dative of manifestation captures the intuition expressed in this premise very well. Thus, there is not much room for disagreement here.⁹

Premise 2: Intentionality

In his canonical elaboration of the structure of intentionality, Subject—Intentional Mode—Content, Tim Crane (2001, p. 31) admits that he does not provide an account of the first relatum, “because the nature of the subject is not something that is within the scope of this book (strange as that may seem)”. Yet, as far as intentional states are concerned, the assumption that attitudes are not free-floating entities but come along with a thinker, perceiver, or believer is rather uncontroversial. What’s controversial is how we should characterize the subject and what kind of commitment is implied in the “acceptance” of a thinker, perceiver, or believer.¹⁰

Premise 3: Subject identity

In a way, this premise is at the same time trivial and important. First of all, if one accepts premises 1 and 2, then it is natural to accept premise 3, if only because the alternative would lead to a multiplicity of subjects, giving rise to questions regarding the relations between them. I discussed this option above in section 2. There are many debates about the relation between consciousness and intentionality, but there is hardly any debate about the relation between the subjects of each. So in a way, this premise simply states the obvious, given premises 1 and 2. But it is plausible to accept it even independently of these premises as the default position. One important reason for this is that there are many conscious experiences that are both phenomenal and intentional—perceptual experi-

ences, for example. If I am looking at a red tomato, then my conscious experience presents me with an object in the external world at which I am thereby visually directed. But there is also something that it is like for me to see the tomato if I am phenomenally conscious of it. Since it would be odd to claim that there are two subjects involved here—one being intentionally directed and one being conscious of the tomato—the default position is that it is one the same subject that is intentionally directed and phenomenally conscious. Second, despite the discussion among analytic philosophers in the last fifty years, it is not clear that phenomenal consciousness and intentionality can be separated from each other so easily anyway. In fact, proponents of phenomenal intentionality (or cognitive phenomenology, see Bayne & Montague 2011) like Searle (1992), Strawson (2004), Pitt (2004), Horgan & Tienson (2002), Kriegel (2013) and others argue to the contrary. Again, then the premise simply states the obvious.

But this premise also is important because once we commit to it, we can follow either premise 1 or 2 in our investigation to see whether we can formulate constraints on the nature of the subject based on either consciousness or intentionality. This is the job of premise 4, which accepts lessons from recent investigations into ways of being intentionally directed.

Premise 4: Embodied Cognition

Cognitive Science has recently been dominated by discussions on the so-called 4Es, i.e., embodied, embedded, enactive, and extended cognition. These notions characterize four important ways in which our current theorizing about cognition departs from classical cognitive science. They are more or less independent of each other and can be accepted and rejected in isolation.¹¹ This is not the place to elaborate in detail all four of them, especially because for the purposes of this argument only the feature of embodiment is important. Many of our psychological acts, like *perceiving*, being *emotionally* directed at or affected by something or other, performing *intentional actions*, etc., are embodied

⁹ I support this premise in more detail in Schlicht (forthcoming). For the purposes of this commentary it is sufficient to note the agreement on the intuition that phenomenal consciousness is relational.

¹⁰ Again, I argue for this premise in Schlicht (forthcoming).

¹¹ An exception may be the intricate connection between cognition being embodied and (therefore) being embedded.

in the sense that features of an organism's non-neural body contribute importantly—be it causally or even constitutively—to the execution of these cognitive acts (Wilson & Foglia 2011).

A plausible claim defended by enactivists is that even a basic cognitive act like perceiving involves many bodily movements like eye-, head- and whole-body movements when looking at or focusing on an object, or when jointly attending to an object with someone else (Noë 2004). This can be accepted independently of more radical claims regarding the usefulness of representations typically put forward by enactivists (Hutto & Myin 2013). What's more, a bulk of empirical evidence has accumulated that supports the important role of the body and bodily actions for psychological acts:

- a) Facial expressions and bodily postures are arguably constitutive elements of feelings and their expression. Many theories of emotion such as multifactorial models (e.g., Scherer 2009; Welpinghus 2013) usually include as one component a bodily feature. Moreover, eye- and head-movements count among the constitutive and content-determining elements of visual perception (Noë 2004).
- b) Research on mirror neurons has demonstrated the intricate relation between perceiving and acting in the sense that the same neural structures are employed for the execution and observation or recognition of intentional acts and emotional expressions (Rizzolatti & Sinigaglia 2008; Keysers 2013). Controversial debates about the role of mirror neurons for social cognition notwithstanding, it is fair to say that from a neural perspective, perception and action have to be considered as constituting one single complex system. We develop motor programs for the performance of certain actions and reuse these programs in our observation of others when they perform such actions. These motor programs contain goal-directed representations with a bodily format (Goldman & de Vignemont 2009) that are crucially different from the propositional format of a belief, say.
- c) What's more, lessons from studies of pathological conditions like visual form agnosia (Mil-

ner & Goodale 1995) suggest that we can be directed at an object in a purely motor-intentional way, thereby demonstrating a “bodily understanding” (Kelly 2002) of an object that is not based on concepts and cannot be put into appropriate words.

Generalizing these (and many other) points (see e.g., Gallagher 2005) leads to a paradigm shift with regard to our understanding of the subject of intentionality: intentionality is not restricted to propositional attitudes; an embodied agent, i.e., an organism,¹² has many sensorimotor, affective, and cognitive means to be directed at objects and states of affairs. This way of understanding the structure of intentionality allows us to capture many more phenomena that clearly fall under the name of intentionality as directedness, e.g., reaching for and grasping an object.

All the premises taken together yield the conclusion that there is one subject capable of intentionality and consciousness that can be identified with the organism (not with the stream of consciousness), characterized by a variety of cognitive capacities allowing for a range of intentional attitudes—some of which are affective,¹³ others sensorimotor,¹⁴ and still others are of sophisticated cognitive¹⁵ varieties. The overall state of the subject, being the whole organism, is represented in the brain. This representation contains information about its body, its interior milieu, etc., such that all representations having to do with the organism's interaction with objects can be coupled to or integrated with the representations monitoring and regulating the state of the organism in the

¹² Talk about embodied agents is broader than talk about organisms. The biological constraints on full-blown cognitive and conscious agents are currently unknown. Whether artificial cognitive systems are possible depends on the limits set by such constraints. In this paper, I cannot address this point.

¹³ One of Brentano's examples in his famous passage on intentionality being the mark of the mental is love, in which someone is loved. This example cannot be adequately captured by restricting intentionality to propositional attitudes which can be formulated using “that-clauses”.

¹⁴ Many forms of being intentionally directed are sensorimotor, e.g., all that has to do with perception and action, this being the biologically primary form of intentionality (Searle 1983, p. 36).

¹⁵ Most cognitive varieties of intentionality are sophisticated and propositional, like beliefs and desires, which can be put into sentences containing “that-clauses”, e.g., Ken believes that physicalism is true.

brain. On the basis of such couplings, it is in principle possible to make sense of the idea that object-representations become subjective in the sense of being something *for* the organism.

A caveat: this does not amount to an explanation of how consciousness arises in the first place, or of *why* integrated representations are experienced at all. But hardly any theory of consciousness has properly addressed this hard problem so far (Chalmers 1996). The limited claim of this commentary is that we can at best make sense of the subjective character of phenomenal consciousness if we adopt an integration-theory as outlined above and regard the subject for which there is *something that it is like* as the whole organism. As I concluded in the first part, depending on how he is going to individuate episodes—a problem which he has not yet solved—, Williford seems to be in need of such an integration-account anyway. Therefore, this sketch of an alternative should be appealing for someone taking subjective character seriously.¹⁶

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¹⁶ The limits of this commentary do not permit an exhaustive discussion of possible objections to this account, but I discuss it at greater length in Schlicht (forthcoming).

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