Higher-Order Approaches to Consciousness and the Regress Problem

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Keywords: Consciousness, higher-order theories of consciousness, empty higher-order states

ABSTRACT

Higher-order approaches to consciousness leave open the possibility of empty higher-order representations. Block (2011) has argued that this makes these approaches incoherent. Rosenthal (2011) and Weisberg (2011) have resisted Block’s argument, arguing that this possibility is not incoherent. Their defence rests on the crucial assumption that in the case of an empty higher-order thought, it seems to the subject as if she was experiencing a particular sensory state. I argue that this crucial assumption entails an intolerable vicious regress and, thus, that the possibility of empty higher-order representations does raise a serious problem for such approaches.

It is well-know that higher-order approaches to consciousness (HOAC) leave open the possibility of empty higher-order representations, that is, the possibility that one be in a second-order state representing that oneself is in a first-order state which does not actually occur (see, for instance, Block 2011; Neander 1998; Rosenthal 2004, 2009, 2011; Weisberg 2010, 2011). Focusing on David Rosenthal’s higher-order thought (HOT) version of that view, Ned Block (2011) has argued, on the basis of this possibility, that the HOAC is incoherent. Rosenthal (2011) and Weisberg (2011) have attempted to resist Block’s argument, insisting that there is no incoherence
in the claim that when a higher-order thought represents that oneself is in certain sensory state S, there is indeed something it is like for the subject to have this second-order thought even if no first-order sensory state occurs. For instance, Rosenthal (2011: 433) points out that ‘there being something it is like for one to be in a state is simply its seeming subjectively that one is in that state’; and he alleges that there is no incoherence in claiming that it may seem subjectively to oneself that one is in S while one is in no sensory state whatsoever. Rosenthal’s and Weisberg’s defence rests on the crucial assumption that in an empty higher-order thought it seems to the subject as if she was experiencing a particular sensory state S. I argue that this crucial assumption entails an intolerable vicious regress and, thus, that the possibility of empty higher-order representations does raise a serious problem for the HOAC.

A central motivation of the HOAC is that it readily accounts for the common-sense intuition that conscious mental states are states the subject is aware of. The common idea shared by various versions of the HOAC is that a mental state is conscious if and only if it is the object of an appropriate higher-order mental state.¹ It is the object of an appropriate higher-order mental state.

¹ There are three main versions of the HOAC: a) the higher-order perception version, according to which the higher-order state is a kind of perception (Armstrong 1968, 1978/1997; Lycan 1987, 1996, 2004), b) the dispositionalist version according to which ‘being the object of an appropriate higher-order mental state’ must be understood as being an object which is available to a higher-order thought, rather than the object of an actual higher-order thought (Carruthers, 2000), and c) the HOT version, according to which a mental state is conscious if and only it is the object of an appropriate higher-order thought (Rosenthal 1997, 2005; Weisberg 2010). While I focus mainly on the HOT version, my argument aims at all three versions.
state in the sense that the higher-order state has a representational content which is about the first-order state. The HOAC leaves open the possibility of empty-higher order states because a second-order mental state is understood as an entity the existence of which is metaphysically independent from the first-order state it represents,² and because it is a defining feature of representational content that it need not be true. I may have a perceptual state the representational content of which is that there is a dagger in front of me even though this content is false, perhaps because there is no dagger in front of me but instead a stick which I mistakenly take to be a dagger or, perhaps, because I am simply hallucinating. In this sense, I may have a second-order thought the content of which is that I am experiencing a certain first-order sensory state S (say pain) even though such content is false, perhaps because I am experiencing a different state S’ or perhaps because I am actually experiencing no sensory state whatsoever, a situation analogous with the case of perceptual hallucination, in which case the second-order state is false because it is empty.

When we think about conscious mental states, however, we seem to be intuitively inclined to deny the possibility of empty higher-order states. As Rosenthal (2011: 432) notes, ‘when one is aware of oneself as being in some mental state, there is a compelling subjective sense that the state does occur.’ Rosenthal thinks, however, that while it is true that the HOT theory leaves open the possibility of empty higher-order thoughts, our inclination to deny this possibility is mistaken. According to him, this mistake can be explained by the fact that we rely only on first-

² In this respect, the HOAC differs significantly from the Self-representational approach to consciousness, sometimes called the ‘one-state view’. According to this view, a mental state is conscious if and only if it represents itself (Brentano 1874/1973; Kriegel 2009; Kriegel and Williford 2006).
person reports of sensory states to acknowledge the actual occurrence of such states. We
normally take such first-person reports at face value and rightly so, since they are normally
correct. To make this point vivid, suppose, for the sake of argument, that sensory state S is
identical to a certain brain state B and that we have some technology that allows us to ‘scan’ a
subject’s brain to observe whether or not brain state B occurs. According to such a scenario, the
subject’s first-person report would no longer be the only way to acknowledge the occurrence, or
non-occurrence, of sensory state S, and it would seem to make perfect sense to imagine a case in
which the subject reports that she is aware of herself being in sensory state S, while our scanning
device tells us otherwise, namely that no sensory state is occurring.

As Rosenthal (2011: 432) points out, what counts for one to be in a conscious state, from
the subjective perspective, is ‘just the occurrence in one’s stream of consciousness of the
relevant subjective appearance’. It might seem to me that I am in sensory state S, while S simply
does not occur. Rosenthal (2011: 432) concludes: ‘So one’s being in a conscious state does not
imply being in the state one is aware of being in.’ Thus, according to Rosenthal, subjective
appearances about what sensory state one is in can mislead us in the same way that perceptual
appearances about what is in one’s environment can mislead us.

In the same spirit Weisberg (2011) proposes a thought-experiment to vindicate the claim
that the HOT theory can accommodate empty higher-order thoughts. Assume again that sensory
state S is identical to brain state B and that we have some device that allows us to identify the
occurrence or non-occurrence of brain state B. Suppose that state B is a lower-level brain state
and that when subjects report experiencing sensory state S with a certain characteristic sensory
quality, state B is accompanied by a higher-level brain state, say B2, ‘in the higher cortical
reaches of the brain’ (Weisberg, 2011: 441), and that such higher-level brain states ‘encode …
the representational information carried by the lower-level brain states’, just as the HOT theory would predict. Weisberg suggests that we can imagine that B2 would be triggered, artificially as it were, by manipulating the appropriate regions of the higher cortical reaches of the brain, when state B does not actually occur in the lower reaches of the brain. He concludes that in such a scenario ‘it seems to the conscious subject that things are exactly the same as when the HO state accompanied a lower-order state in the normal way.’ (Weisberg, 2011: 442) The moral, again, is that we can coherently conceive that empty higher-order states exist.

There is, however, a pressing problem facing Rosenthal’s and Weisberg’s defence of the HOT. This defence arguably triggers an infinite regress of higher-order states. Here is the argument:

1. In the case of an empty higher-order representation, it seems to the subject as if she was experiencing a particular sensory state S.
2. If the subject reports that subjectively it is for her as if the first-order state occurred, then she is in a conscious state. Let’s call this conscious state SA (for ‘subjective appearance’).
3. Ex hypothesi, SA is not sensory state S. (It is unclear what kind of state SA is, but for the sake of argument we can assume that it is a doxastic state, something like the belief that oneself is experiencing sensory state S).
4. Since SA is conscious then, according to the HOT theory, the subject is aware of SA, in the sense that SA is the object of an appropriate (unconscious) higher-order state, representing that oneself is in SA. Let’s call this higher-order state SA2.
(5) Given that the HOT theory leaves open the possibility of empty higher-order states, nothing in the HOT theory rules out the possibility that SA2 be itself an empty state, namely that it occurs while SA does not actually occur.

(C) This triggers an infinite vicious regress of empty higher-order states. If SA2 is empty, it surely seems to the subject that it is not, and this subjective appearance in turn is a conscious state, which must be the object of a higher-order state SA3, and so on ad infinitum.

The argument is valid, but is it sound? As I have already pointed out, premise (1) is explicitly endorsed by Rosenthal and Weisberg. Premise (3) is simply a consequence of the possibility of empty higher-order representations. Premises (4) and (5) follow directly from central claims of the HOAC. If one is to object to the argument, one will probably want to resist premise (2), denying that the subject is in a conscious state SA.

One could try to resist premise (2) by insisting that in an empty higher-order state, while there is a ‘subjective appearance in one’s stream of consciousness’, as Rosenthal puts it, that subjective appearance is not itself a conscious state, contrary to what premise (2) asserts. The subjective appearance might be understood as a kind of subliminal unconscious state.

This objection, however, is problematic. As Weisberg (2011: 442) makes clear, in an empty higher-order state, ‘it seems to the conscious subject that things are exactly the same as when the HO state accompanied a lower-order state in the normal way.’ In both cases, there is the occurrence in one stream’s of consciousness of the same subjective appearance. In the normal case, however, it seems hard to deny that the subjective appearance is conscious. If one claims, as the objection suggests, that in the empty case the subjective appearance is not conscious then, by parity of reasoning, one would also have to deny that the subjective
appearance is conscious in the non-empty case. When it seems to me that I am in pain and I actually am in pain, however, the subjective appearance that I am in pain is certainly conscious.

Here the analogy with perceptual hallucination may be helpful. When Macbeth has the visual hallucination that there was a dagger in front of him, it seems to him that things are exactly the same as if he were seeing an actual dagger. The subjective appearance in the case where Macbeth has the visual hallucination is the same as when he sees a real dagger. In the case of a visual hallucination, however, no one would be tempted to deny that the subjective appearance is conscious, or to deny that the subjective appearance is something Macbeth is aware of. It would hardly make any sense to claim that the subjective appearance is an unconscious subliminal state. The first moral to draw is that it makes perfect sense to talk of a subjective appearance as being a conscious state. The second is that if empty higher-order states are to be understood as a kind of hallucination of the occurrence of a first-order state, then by parity of reasoning with the case of visual hallucination we must understand the subjective appearance (as of the occurrence of a first-order state) as being itself a conscious state, as premise (2) states. Again, if one claims that in the case of an empty higher-order state the subjective appearance is not conscious then, by parity of reasoning, one would also have to deny that the subjective appearance in the visual hallucination case is conscious. This is, however, implausible.

One could try to mount a similar objection to premise (2), but in a slightly different way. One could grant that in an empty higher-order state it seems to the subject as if she were experiencing a particular sensory state S, and claim that when she reports that subjectively it is for her as if the first-order state occurred, she is not aware of any actual conscious state whatsoever, but she is aware only of a representational content that happens to be false.
It is easy to see, however, that we can also reply to this objection on the basis of the analogy to visual hallucination. There is a non-extensional or intensional sense of ‘aware of’ in which Macbeth is aware of a dagger in front of him.\(^3\) It is very plausible to understand this non-extensional sense of ‘aware of’ as the claim that Macbeth is aware only of the representational content of his quasi-visual state and not of any actual object. Once again, we can assume that this representational content appears to Macbeth just as if he was confronted with a real dagger: the subjective appearance in both cases is the same.\(^4\) Nobody would deny, however, that in the hallucination case, when Macbeth has the visual hallucination of a dagger, a particular mental state occurs in Macbeth’s stream of consciousness. Call this mental state H (for hallucination). Neither would anyone deny that this mental state is conscious. Moreover, according to the HOT theory, H is conscious if and only if it is the object of an appropriate (unconscious) higher-order mental state; call this higher-order state H2. That is to say that H2 represents that H is occurring. Thus, according to the HOT theory, the subject must be aware of the content of H2, namely that oneself “sees” a dagger in front of oneself.

Consider the case of an empty higher-order representation. It appears to Lucy just as if she were in a sensory state S, but there is no sensory state S. How could this be? She is aware of the same representational content she would be aware of if S did occur. She is aware also of a content which is false because it is empty, but which would be true if sensory state S did occur. Nobody, not even Rosenthal and Weisberg, would deny that in this case, when Lucy

\(^3\) In the extensional sense ‘aware of x’ entails that x exists. In the non-extensional or intensional sense, this expression has no such existential implication.

\(^4\) If we assume a representationalist account of perceptual content, this point could be stated by claiming that the two states have the same representational content.
‘hallucinates’, a sensory state does occur in Lucy. I call this mental state SA (for subjective appearance). If, however, we accept that in Macbeth’s case mental state H does occur and that H must be a conscious state, as I have suggested in the last paragraph, then by parity of reasoning we must also accept that in Lucy’s case SA is a conscious state. This other way of stating the objection to premise (2) also fails. The argument is therefore sound.

As we know, it is doubtful that any philosophical arguments can be absolutely conclusive. From a dialectical point of view, however, I take it that the regress argument is quite strong. A central motivation of the HOAC is that it accounts for the compelling intuition that a conscious state is a state one is aware of. This motivation is also shared by so-called Self-representational theories of consciousness.\(^5\) It is obvious that the regress problem does not arise for such theories, given that they rule out the possibility that one might be aware of a mental state which does not occur. This is a virtue of the Self-representational approach. It is not my purpose to defend a Self-representational account of consciousness here, but the regress argument seems to credit this view with an important advantage over the HOAC.\(^6\)

References


Block, N. 2011. The higher order approach to consciousness is defunct. *Analysis* 71: 419-431.

\(^5\) See note 2.

\(^6\) I thank Rocco Gennaro, David Rosenthal, Daniel Shargel and Josh Weisberg for their helpful comments on an earlier version of this paper.


