

Neither *HOT* nor *COLD*

An Alternative Account of Consciousness

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ABSTRACT: I identify three dominant positions in the philosophy of mind on the nature and distribution of consciousness: the exclusive HOT position, the inclusive HOT position, and the COLD position. I argue that each of these positions has its own rather counterintuitive consequence and, as a result, is not entirely satisfying. To avoid these consequences, I argue, a common assumption of the dominant positions ought to be rejected -- namely, that to be conscious *of* one's mental states is to be conscious *that* one has them. I go on to show that once this assumption is rejected, an alternative account of consciousness -- the SO account -- emerges. I develop the SO account in the latter half of the paper, showing how it offers a plausible explanation of the difference between conscious and unconscious mental states.

1. Introduction

There are three dominant positions in the philosophy of mind on the nature and distribution of consciousness that can be identified by their responses to the following inconsistent quartet of propositions:

1. Conscious mental states are simply mental states of which one is conscious.
2. To be conscious of one's mental states is to be conscious that one has them.
3. Animals have conscious mental states.

4. Animals are not conscious that they have mental states.

Proponents of the first position take propositions 1, 2 and 4 to be true and conclude that proposition 3 is false: the mental states of animals, insofar as they have them, are unconscious. Proponents of the second position take propositions 1, 2 and 3 to be true and concluded that proposition 4 is false: animals are conscious that they have mental states. And proponents of the third position take propositions 2, 3, and 4 to be true and conclude that proposition 1 is false: having conscious mental states does not require being conscious of them.

Proponents of the first two positions typically endorse some version of the higher- order thought (HOT) theory of consciousness; so I shall call these first two positions *HOT positions*. To distinguish between them, I shall call the former the *inclusive* HOT position, since it includes animals in the class of creatures capable of being conscious that they have mental states, and the latter the *exclusive* HOT position, since it excludes animals from this class. Peter Carruthers (2000) is perhaps the best-known proponent of the exclusive HOT position, while David Rosenthal (1986, 1997) is perhaps the best-known proponent of the inclusive HOT position.

The third position, unfortunately, lacks a consistent title in the literature. For the sake of this paper, however, I shall call it the *COLD position*, since its proponents, in rejecting proposition 1, maintain that being *conscious of* one's mental states *lacks* the power, as it were, to *differentiate* conscious from unconscious states. Fred Dretske (1995) is perhaps the best-known proponent of the COLD position.

I argue that neither of these positions is entirely satisfying, since the propositions they are forced to conclude are false -- namely, proposition 1, 3, and 4 -- are all intuitively plausible; and that all three positions mistakenly assume, in their endorsement of proposition 2, that the only way to be conscious of one's mental states is to be conscious that one has them. Once this mistake is exposed, I argue, an alternative way of thinking about consciousness emerges that is perfectly consistent with the truth of propositions 1, 3, and 4. My intention here is not to conclusively refute each of the three positions above -- I'm not sure that such a thing could be done. Rather, my intention is to introduce and motivate an alternative view of consciousness and, thereby, to advance the current debate in the philosophy of mind over the nature of mental state consciousness.

2. State Consciousness

Some distinctions are in order before we continue. First, it is generally recognized that there are two different kinds of things, creatures and mental states, that can be conscious and, thereby, two different kinds of consciousness: *creature consciousness* and *mental state consciousness* ('state consciousness' for short). Creature consciousness comes in two varieties. A creature can be conscious in the sense of being awake, as opposed to being asleep or comatose, and it can be conscious in the sense of being conscious *of* something.

Since the former variety of creature consciousness does not require the deployment of a direct object after 'conscious,' while the latter variety does, the former is typically called *intransitive* creature consciousness, while the latter is typically called *transitive* creature conscious.<1>

Now, there are also two different varieties of transitive creature consciousness, since there are two different kinds of things of which a creature can be transitively conscious: things outside its mind and things inside its mind. A creature that is conscious of something outside its mind -- say, some event or object in its environment -- is said to be *outwardly* conscious of it; whereas, a creature that is conscious of something inside its mind -- say, a thought or an experience -- is said to be *inwardly* conscious of it.<2>

Mental states, as noted above, are also said to be conscious. We say, for instance, that John's auditory experience of the ticking of the clock is conscious (as opposed to saying that it is unconscious or subliminal), or that Mary has the conscious thought that she married the wrong person (as opposed to saying that she has this thought unconsciously -- say, as the result of some act of self-deception or denial). State consciousness admits of only an intransitive variety, however. We say that John's auditory experience is conscious, *full stop*; or that Mary's thought is conscious, *full stop*. We do not say that John's auditory experience is conscious *of* something, or that Mary's thought is conscious *of* something. The ordinary use of 'conscious' does not take a direct object when applied to mental states, and in that sense, it is used intransitively.<3>

It is with the nature of state consciousness that the three positions mentioned above are concerned. And all three endorse some explanation of the nature of state consciousness in terms of one variety or the other of transitive creature consciousness. The HOT positions, for instance, endorse the view that what makes a mental state conscious is the fact that its possessor is inwardly conscious of it. Rosenthal (1997), for instance, writes that "a mental state is intransitively conscious just in case we are transitively conscious of it" (p. 737). HOT theorists, of course, go on to identify our being transitively conscious of our mental states with our being conscious that we have them -- that is, with our having non-inferentially based higher-order thoughts to the effect that we have such states. Again, Rosenthal (1987) writes that since "in general, our being conscious of something is just a matter of our having a thought of some sort about it[,]... it is natural to identify a mental state's being conscious with one's having a roughly contemporaneous thought that one is in that mental state" (p. 335).<4>

The COLD position, on the other hand, endorses the view that what makes a mental state conscious is the fact that the mental state itself makes its possessor outwardly conscious of some item or fact in the environment. Dretske (1997), for instance, writes that "[w]hat makes [mental states] conscious is not S's awareness of them, but their role in making S conscious -- typically (in the case of sense perception), of some external object" (p. 6).

Although the COLD theorist disagrees with the HOT theorists over what kind of transitive creature consciousness is necessary and sufficient for state consciousness, he agrees with the HOT theorists that to be inwardly conscious of one's mental states is to be

conscious that one has them. "The mind's awareness of itself," Dretske (1999) maintains, "is an awareness of facts about itself, an awareness that internal experience, *e* is *B*" (p. 2). The COLD theorist and the HOT theorists, then, are in apparent agreement over one thing: that proposition 2 above is true.

I shall argue that these positions are mistaken on this point of agreement, and that, as a result, they all share a common problem. However, before I argue for this, I wish to show how each position has its own unique counterintuitive consequences.

3. HOT Consequences

Recall that the exclusive HOT position is forced to conclude that the mental states of animals, in so far as they have them, are unconscious. But, this consequence is rather counterintuitive on the face of it. It seems plausible that some animals have conscious perceptual experiences and beliefs about items in their environments. My reason for claiming this is not that I have succeeded in imagining what it is like for animals to perceive or have beliefs about items in their environments -- for I have not. Rather, my reason for claiming this is simply that a lot of animal behavior can be predicted and explained quite well in terms of the concepts and generalizations of our folk psychology, and that these concepts and generalizations are about *conscious* mental states.

For instance, when my wife asks me why Fred (our neighbor) and Fido (his dog) are looking into the branches of our oak tree, and I reply, "Because they saw Minx (our cat) run up the tree and think that she's still up there," I am using the same folk- psychological concepts (e.g., 'see' and 'think') and the same (implicit) folk- psychological generalizations (e.g., one will think that *x* is in location *y* if one just saw *x* go into location *y*, *ceteris paribus*) to explain Fred's and Fido's respective behaviors; and these concepts and generalizations are about conscious mental states. I have no idea what Fred or Fido would do if they had unconsciously saw Minx run up the tree and had unconsciously thought she was still up there. Our folk theory is a theory of how conscious mental states interact and produce behavior. It is not a theory about how unconscious mental states interact and produce behavior. Unconscious mental states fall under their own laws, and it is the project of scientific psychology to discover them. Therefore, since our folk theory does a fairly good job in explaining and predicting quite a lot of animal behavior, we have some reason to believe that animals have the kinds of mental states that our folk theory's concepts and generalizations are about -- namely, conscious mental states.

Peter Carruthers (2000) disagrees. He argues that there is no explanatory need to attribute conscious mental states to animals:

Everything that the cat does can be explained perfectly well by attributing beliefs, desires, and perceptions to it. There is no explanatory necessity to attribute *conscious* beliefs, desires, or perceptions. All we really have reason to suppose, in fact, is that the cat *perceives* the smell of the cheese.

We have no independent grounds for thinking that its percepts will be phenomenally conscious ones. Certainly such grounds are not provided by the need to explain the cat's behaviour. For this purpose the concept of perception, *simpliciter*, will do perfectly well. (p. 199)

I agree with Carruthers that it's not necessary for me to say to my wife that Fred and Fido consciously saw Minx run up the tree and consciously think that she is still up there. I could, and did, simply say that they saw Minx run up the tree and think that she is still up there. But, this in no way indicates that I was explaining Fred's and Fido's behaviors in terms of something other than the mental states that are picked out by the concepts and generalizations of our ordinary folk psychology. I was not explaining their behaviors in terms of mental states that are neither conscious nor unconscious -- for there are no such mental states -- or in terms of unconscious mental states -- for I do not know the laws that describe the functions of such mental states.

Carruthers' point, however, might be that we could explain and predict animal behavior just as well with a theory whose concepts and generalizations are about unconscious mental states and processes. But clearly the burden is on Carruthers to show that there is such a theory which explains and predicts animal behavior just as well as our folk theory. As far as I know, there is no such theory in the offing. So, as things stand presently, we seem to have more reason to believe that animals have conscious mental states than that they do not.

The inclusive HOT position, on the other hand, endorses the view that animals have conscious mental states. But in doing so, it commits itself to the view that animals are conscious that they have mental states. And such a view, I believe, is rather implausible. For to be conscious that one has mental states is to know and, therefore, to think that one has mental states; and to think that one has mental states involves having higher-order thoughts about one's lower-order mental states. But such higher-order thoughts seem much too sophisticate for many (if any) animals to possess, since they would be about states internal and unobservable to the animal itself. Recall that in its endorsement of proposition 2 above, the inclusive HOT position (as well as the exclusive HOT position) is committed to the view that the only type of awareness one has of one's own mental states is a cognitive awareness *that* one has them. There is, in other words, no observational awareness of one's mental states that occurs between one's mental states and one's cognitive awareness that one has them. Consequently, on the inclusive HOT position, to be conscious that one has mental states is to have thoughts about internal states that are unobservable to oneself, much like having thoughts about states of one's own brain or heart.

But, it is certainly implausible to suppose that animals have thoughts -- even very crude ones -- about unobservable states occurring inside their own bodies. It is intuitively implausible to suppose, for instance, that my cat has thoughts -- even very crude ones -- about what is going on inside her own brain or heart. How would she come to have such thoughts? She would not acquire them through observation, since my cat does not observe what is going on inside her own brain or heart. And it is intuitively implausible

to suppose that she acquires them through some sort of hypothesis-to-the-best-explanation process. For it is implausible to suppose that my cat engages in such explanatory processes at all.^{<5>} But by parity of reason, then, it seems just as implausible to suppose that my cat -- or any animal for that matter -- has thoughts about unobservable states occurring inside her own mind.

Rosenthal (1986) disagrees, at least with respect to the plausibility of animals having thoughts about their own sensory states. He writes:

One need not have much ability to think to be able to have a thought that one is in a particular sensation. Infants and nonhuman animals can discriminate among external objects, and master regularities pertaining to them. So most of these beings can presumably form thoughts about such objects, albeit primitive thoughts that are very likely not conscious. No more is needed to have thoughts about one's more salient sensory experiences. (p. 350)

I do not find Rosenthal's analogy here particularly persuasive, however. I agree that it is likely that animals discriminate among external objects and master regularities pertaining to them if they *observe* these objects. But if they cannot observe these objects (because, say, they are inside their own or other creature's bodies), then it is not at all clear that they would be able to discriminate among them and master regularities pertaining to them. How would they perform such discriminations? Rosenthal's analogy has force only on the assumption that animals *observe* the sensory experiences about which they (putatively) discriminate and master regularities. But, of course, an inclusive HOT theorist, such as Rosenthal, cannot make such an assumption. One's mental states, according to the inclusive HOT position, are only thought about, not observed by, oneself.

4. COLD Consequence

It seems, then, that both HOT positions have rather counterintuitive consequences. It might be thought, then, that the COLD position is the position to endorse. After all, the COLD position accepts the claim that animals have conscious mental states and denies the claim that they are conscious that they have such states. The COLD position, however, has its own unique counterintuitive consequence: the denial of proposition 1 above.

My only proof that proposition 1 is intuitively plausible -- and, hence, that its denial is counterintuitive -- is that it seems to me, and to others (Rosenthal, 1997, p. 738; Lycan, 1996, p. 25), that part of our folk-psychological concept of state consciousness is that conscious mental states are mental states of which a subject is conscious. It simply sounds strange to my ears to say that a creature could have a conscious thought or experience of which it was not at all conscious.

Of course, appearances are sometimes deceiving. So, I admit that I could be mistaken in my intuition about what we mean when we say that a creature's mental state is conscious. And in fact, Fred Dretske, in defending the COLD position against the sort of objection I raise here, makes a few remarks that look to be aimed at challenging the truth of proposition 1. Yet when examined closely, Dretske's remarks, I believe, amount to something less than a compelling argument.

Here are the remarks that Dretske (1995) makes which appears to be directed at undermining the truth of proposition 1:

Some people have cancer and they are conscious of having it. Others have it, but are not conscious of having it. Are there, then, two forms of cancer: conscious and unconscious cancers?

Some people are conscious of having experiences. Others have them, but are not conscious of having them. Are there, then, two sorts of experiences: conscious and unconscious experiences?

Experiences are, in this respect, like cancers. Some of them we are conscious of having, others we are not. But the difference is not a difference in the experience. It is a difference in the experiencer -- a difference in what the person knows about the experience he or she is having. (p. 97)

On one interpretation -- at least, one which is relevant to our purposes -- Dretske appears to be suggesting something like the following argument: if conscious experiences are simply experiences of which one is conscious, then there would be experiences of different sorts -- conscious and unconscious ones -- without there being any difference *in* those experiences^{<6>}; but, that would be just as absurd as there being cancers of different sorts without there being any difference *in* those cancers; and, therefore, it is not the case, as proposition 1 entails, that conscious experiences are experiences of which one is conscious.

Dretske's argument, assuming that I have interpreted it correctly, appears to rest upon a rather dubious assumption -- namely, that it is impossible for there to be different sorts of things (e.g., experiences, cancers, and so forth) without their being a difference *in* those things. This, however, does not appear to be impossible. There may, for instance, be no difference *in* the rocks on earth and those on the moon. They may be composed of precisely the same elements and minerals, say. And yet the rocks on the moon are lighter than those on the earth. Hence, there are different sorts of rocks -- heavy rocks and light rocks -- without there being a difference *in* those rocks. Or consider the fact that there may be no difference *in* the paintings of Rembrandt and those of a Rembrandt forger. The paintings may share all the same arrangements of color, shapes, brushstrokes, and so on. And yet the former paintings are Rembrandts, while the latter are not. And so there are different sorts of paintings -- Rembrandts and non-Rembrandts -- without there being a difference *in* those paintings.

Why, then, can't the same be said of experiences? There are different sorts of experiences -- conscious and unconscious ones -- without there being a difference *in* those experiences. This would, of course, suggest that state consciousness is an extrinsic (or relational) property of experiences, as heaviness and lightness are extrinsic properties of rocks, and Rembrandtness and non-Rembrandtness are extrinsic properties of paintings. But, what of it? In fact, this seems to be the very idea behind the truth of proposition 1: being conscious of one's thoughts and experiences is an extrinsic property of one's thoughts and experiences, and saying that one's thoughts and experiences are conscious is simply saying that they have this extrinsic property. Dretske's argument, then, appears to assume that state consciousness is not an extrinsic property, and such an assumption, it would appear, begs the question against the very idea behind the truth of proposition 1.

5. Neither *HOT* Nor *COLD*

I'm not convinced, then, that Dretske's argument provides a good reason to doubt my intuition in the truth of proposition 1. But now where does this leave us? If propositions 1, 3, and 4 above are all intuitively plausible, should we, then, conclude that proposition 2 -- the proposition that to be conscious of one's mental states is to be conscious that one has them -- is false? I believe so. But, if proposition 2 is rejected, it might be wondered: what is it, then, to be conscious of one's mental states? And, it might be further thought that unless an answer can be given to this question, perhaps it is wiser to accept proposition 2 and simply bite the bullet and deny one of the remaining propositions 1, 3, or 4 -- despite their intuitive appeal.

I don't disagree with this line of reasoning, but I also don't think that we have to bite any bullets. For I believe that there is another way to be conscious of one's mental states which does not amount to being conscious that one has them and is, therefore, perfectly consistent with the truth of propositions 1, 3, and 4: one can simply be conscious *of what* one's mental states represent. My claim is that a creature can be conscious *of* its thoughts and experiences simply by being conscious *of what* it thinks or experiences in having those thoughts or experiences, and that its being conscious *of what* it thinks or experiences does not entail its being conscious *that* it thinks or has experiences. To give some intuitive support for this claim, consider an analogous claim regarding paintings.

It seems plain that in order to see *what* a particular painting represents, one must see the painting itself. If one does not see the painting itself -- say, if one is looking in the wrong direction, or is seeing a different painting, or is blind -- then one cannot be said to see *what* that particular painting represents. But, to see *what* a particular painting represents does not necessarily require seeing *that a particular painting* represents something (or even *that there is a particular painting present*). When we are fooled by a *trompe l'oeil* painting, for instance, we do not see that a painting represents something (or even that there is a painting present) -- otherwise, we would not be fooled. Rather, in such cases, we simply see *what* the painting represents. And so it appears that, with respect to *trompe l'oeil* paintings, one can see (be aware of) a particular painting by seeing *what*

(being aware *of what*) it represents without seeing *that* (being aware *that*) a painting represents something (or even *that* there is a painting present).

An important point of clarification should be made before we move on. The phrase, "what the painting represents," is ambiguous. It could be taken to refer to the actual object (person, place, or thing) the painting is based on or to (what philosophers call) the intentional content of the painting. Three identical-looking paintings by different artists, for example, may each depict a woman seated before an open window, and yet it may be that neither of the paintings is based on the same woman: two of the artists, we may suppose, had different women modeling for them, and one artist simply created his painting from his imagination. So, in one sense of the phrase "what the painting represents," the intentional-content sense, what these three paintings represent is the same: a woman seated by an open window. But, on the other sense of this phrase, the actual-object sense, what these paintings represent is not the same, since different women were the models for two of the paintings, and no woman was a model for the other. It is the intentional-content sense of the phrase "what the painting represents" that is being used in the *trompe l'oeil* example above. To see what (be aware *of what*) a particular *trompe l'oeil* painting represents is to see what (be aware *of what*) intentional content that particular painting has.

There is a similar ambiguity with the phrase "what one thinks or experiences." The phrase may refer to the actual, distal object of one's thought or experience, or it may refer to the intentional content of one's thought or experience. What three different people experience or think, for example, may be said to be the same: each may see a red tomato on a table, and each may think that the tomato on the table would be good to eat; and yet the actual, distal objects of their respective experiences and thoughts may not be the same: two of the people may be looking at different tomatoes, and the other may be hallucinating. It is the intentional-content sense of the phrase, "what one thinks or experiences," that I use when speaking of a creature being conscious *of what* it thinks or experiences. Therefore, since what the three people above experience and think is, with respect to the intentional contents of their respective experiences and thoughts, the same, what they are conscious of when they are conscious *of what* they experience or think is also the same.

Now, I believe that just as one can be aware of a particular painting by being aware *of what* it represents without being aware *that* a painting represents something (or even *that* there is a painting present), a creature can be conscious of its own particular thoughts and experiences by being conscious *of what* they represent without its being conscious *that* it has thoughts or experiences. Consider, for instance, a two- and-a-half-year-old child who, pointing at her dolly, says, "that's my dolly." The child certainly appears to be conscious *of what* she believes (namely, that that is her dolly), as is evidenced by the fact that she says what she believes.<8> It seems unlikely that the child would be able to say what she believes if she were not conscious *of what* she believes.<9> But though it is very likely that the child is conscious *of what* she believes, it is not at all obvious that she is conscious *that* she *believes* it. On the contrary, it seems quite possible that this child is not at all aware of the fact that she has beliefs. For she very well may not have the

concepts required to think about her beliefs.<10> Therefore, it seem quite possible that the child is conscious *of what* she believes but is not conscious *that* she believes it.

But in being conscious *of what* she believes, the child is conscious *of what* a particular belief of hers represents (namely, the belief that that is her dolly). She is, in other words, conscious *of what* a token mental state (of a certain type) of hers represents. It is difficult, however, to understand how she could be conscious *of what* a token mental state of hers represents if she were not conscious of the mental state itself. How could one see what (be aware *of what*) a particular painting represented, or hear what (be aware *of what*) a particular utterance meant, if one did not see (was not aware of) the painting itself, or did not hear (was not aware of) the utterance itself? A painting and an utterance, of course, are different from a belief. But each is an individual representation, and as such, each seems to require one's awareness of it in order to be aware *of what* it (as opposed to some other token representation) represents. Therefore, in being conscious *of what* she believes, the child is, in some sense, conscious of a particular belief of hers -- though, she is not so by being conscious *that* she has such a belief.<11>

Consider, as well, the case of an animal that is conscious *of what* it perceives without its being conscious *that* it perceives. My cat, for instance, upon espying movement in the bushes, behaves in such a way that it seems quite appropriate to say of her that she is paying attention to what she is seeing -- namely, the movement in the bushes. But surely, if she were completely unaware *of what* she was seeing, she would not be able to attend to what she was seeing.<12> So, since it is plausible to say that my cat is paying attention to what she is seeing, it is plausible to say that she is (to some degree at least) conscious *of what* she is seeing. However, it is rather implausible that my cat is conscious *that* she *sees* movement in the bushes, since it is rather implausible to suppose, as we saw above, that my cat has thoughts about her own mental states. Nevertheless, in being conscious *of what* she is seeing, my cat is conscious *of what* a token visual state of hers represents. And, again, it is hard to understand how my cat could be conscious *of what* a token mental state of hers represents if she were not, in some way, conscious of the mental state itself. Therefore, in being conscious *of what* she sees, my cat is, in some sense, conscious of a particular visual state that she is in -- though, she is not so by being conscious *that* she is in such a visual state.

6. An Alternative Account of Consciousness

If the distinctions I have drawn above are genuine, then there appear to be two varieties of inward consciousness. A creature can be inwardly conscious of its thoughts and experiences by being conscious *that* it has them, or it can be inwardly conscious of its thoughts and experiences by being conscious *of what* they represent. Since the former variety of inward consciousness requires a creature to know and, therefore, to think that it has thoughts and experiences, we can perhaps appropriately label it as *higher-order* inward consciousness. The other variety of inward consciousness, as we have seen, does not require that a creature know or think that it has thoughts or experiences. It merely

requires that it be conscious *of what* its thoughts and experiences represent. And since what one is conscious of, when one is conscious *of what* one's thoughts and experiences represent, is *what* one's thoughts and experiences represent<13> -- that is, the very same order of things and properties that are contained in the intentional contents of one's thoughts or experiences -- perhaps we can appropriately label this variety of inward consciousness as *same-order* inward consciousness.

In their acceptance of proposition 2, proponents of the HOT positions and those of the COLD position assume that there is but one type of inward consciousness -- namely, the higher-order variety. However, we have seen that the intuitive plausibility of propositions 1, 3, and 4 gives some motivation for rejecting this assumption and proposition 2 which rests upon it. But, if being conscious of one's thoughts and experiences is not being higher-order conscious *that* one has them, then what, one might wonder, is it to be conscious of one's thoughts and experiences? The answer, I submit, is that it is to be same-order conscious of them -- that is, it is to be conscious *of what* they represent.

Now, if this submission is granted, then an alternative account of state consciousness emerges, one which is neither endorsed by the HOT positions nor the COLD position. On this account, which we can call the same-order (SO) account, what makes a creature's thoughts or experiences conscious is the fact that the creature is conscious *of what* (not *that*) its thoughts or experiences represent. On the SO account, creatures that are conscious *of what* they think and experience have conscious thoughts and experiences, and those that are not conscious *of what* they think or experiences have unconscious thoughts and experiences.

To illustrate the SO accounts' explanation of the difference between conscious and unconscious mental states, consider a well-known case of unconscious perception: blindsight. Due to damage to parts of their visual cortex, blindsight subjects have blind regions (scotomas) in their visual field. Items that fall within a blindsight subject's scotoma are treated by the subjects as if they are not seen. Nevertheless, on forced-choice test trials, blindsight subjects are able to guess correctly (from a list of options) what feature an item within their scotoma has -- though, they sincerely declare that they are not aware of any such item. These results have led researchers (Marcel, 1998; Weiskrantz, 1986) to hypothesize that blindsight subject have unconscious visual perceptions of certain features and items within their scotomas.

Most of us, fortunately, do not suffer from blindsight. Items placed in our field of vision are (under normal conditions) consciously perceived. The SO account offers the following explanation of the relevant difference between blindsight subjects and normally sighted subjects. Blindsight subjects are not conscious *of what* they are perceiving when they are undergoing an unconscious perception of some object or feature in their scotoma, as is evidenced by the fact that they sincerely declare that there is no such object or feature in that region of their visual field. It is this fact -- the fact that these subjects are not conscious *of what* they are perceiving -- that, on the SO account, makes the perceptual states of blindsight subjects unconscious.<14> Normal sighted individuals, on the other hand, are quite aware *of what* they are perceiving when they are undergoing

a conscious perceptual state, as evidenced by the fact that they are quite able to report sincerely and spontaneously on what they are perceiving. It is this fact -- the fact that these individuals are conscious *of what* they are perceiving -- that, on the SO account, makes their perceptual states conscious.

In addition to cases of unconscious perception, there are numerous scientific cases that strongly suggest that people undergo unconscious thoughts and thought processes. Nisbett and Wilson (1977), for example, describe a number of studies in which people behave in particular ways as an apparent result of certain unconscious beliefs that they possess. In one such study, subjects were given a series of electric shocks of increasing intensity. Half of the subjects were given a placebo pill which they were told would produce symptoms such as heart palpitations, breathing irregularities, hand tremors, etc. - - symptoms, that is, that are typical of electric shocks. It was predicted that the subjects that were given the pill would form the unconscious belief that their shock-related symptoms were due to the pill (and not to the electric shock) and, as a result, would tolerate more amperage than the subjects that were not given the pill. And this is precisely what happened. The pill subjects took four-times as much amperage as the non-pill subjects; and yet in the interview process that immediately followed the test trial, the pill subjects firmly denied that the pill had any such affect on their behavior.

Of course, many of our beliefs are conscious, especially those that we linguistically express. The SO account offers the following explanation of the difference between our conscious beliefs and our unconscious beliefs, such as those possessed by the subjects in Nisbett and Wilson's experiment. The subjects in the Nisbett and Wilson's experiment sincerely deny what they in fact seem to believe about the pill's affect on their behavior. And their sincere denials *of what* they believe indicate that they are unaware *of what* they believe.<15> It is this fact -- the fact that these subjects are unaware *of what* they in fact believe -- that, on the SO account, makes their beliefs unconscious. In contrast, subjects are conscious *of what* they *consciously* believe, as evidenced by the fact that, under normal conditions, they are able to say sincerely and spontaneously what they in fact believe. It is this fact -- the fact that a subject is conscious *of what* he believes -- that, on the SO account, makes his belief conscious.

So, it appears that the SO account can offer a plausible explanation of the difference between conscious and unconscious perceptions and thoughts. But, there are two additional items that need to be mentioned before the account can be judged fairly.<16> First, on the SO account, the state of being conscious *of what* one's token mental state *M* represents is *caused* by one's mental state *M*. This causal condition of the SO account is independently plausible and gives a satisfactory explanation for why one is conscious *of what* *M* represents and not conscious *of what* some other token mental state (which one might be in at the time) represents. So, according to this causal condition, your being conscious *of what* you are seeing is caused by your state of seeing, which, in turn, explains why you are conscious *of what* you are seeing and not, say, conscious *of what* you are hearing, smelling, or believing.

Second, the state of being conscious *of what* one's mental state *M* represents possesses causal powers distinct from those possessed by the mental state *M* itself. In linguistic creatures, for instance, a subject who is conscious *of what* her mental state *M* represents is able to give a spontaneous (i.e., a non-observationally and non-inferentially based) report on the content of her mental state *M*; whereas, a subject who possesses the mental state *M* but who is not conscious *of what* her mental state *M* represent is not able to give a spontaneous report on the content of her mental state *M*. A pill subject in the Nisbett and Wilson experiment who is not conscious *of what* she actually believes (with regard to the cause of her shock-related symptoms), for example, is unable to spontaneously say (in the interview process) what she actually believes when she is asked about the cause of her shock-related symptoms; whereas, a person who is conscious *of what* she actually believes with regard to some subject matter (say, the time of day) is capable of spontaneously saying what she actually believes about this subject matter (say, "It is now 10:01 a.m.") when asked about it.

In addition, a creature's state of being conscious *of what* its mental state *M* represents increases the chances that what *M* represents (i.e., the intentional content of *M*) will be placed in the creature's short-term memory. A person who is conscious *of what* she believes with regard to some subject matter, for instance, is much more likely to remember what she believed about that subject matter than a person who (like the pill subject's in Nisbett and Wilson's experiment) is not conscious *of what* she believes with regard to some subject matter. For it is very difficult to remember what one believed or perceived at a certain time if at that time one was not conscious *of what* one was believing or perceiving.

It should also be noted that a creature's state of being conscious *of what* its mental state *M* represents improves the creature's chances of adapting to changes in its environment. A cat who sees movement in the bushes, for instance, but who is not conscious *of what* she is perceiving -- perhaps, as a result of being momentarily distracted by a loud noise -- is less likely to catch the mouse in the bushes than the cat who sees the movement and is conscious *of what* she is perceiving. And a blindsight subject who is not conscious *of what* she is perceiving when she is (unconsciously) perceiving an object placed in a certain (blind) region of her visual field is less likely to respond adaptively to the object than a normal sighted person who is conscious *of what* he is perceiving when he is perceiving such an object placed in his visual field.<17>

Finally, it is important to note that the truth of the SO account is consistent with the truth of propositions 1, 3, and 4 above. The SO account does not deny, as the COLD position does, that conscious mental states are simply mental states of which one is conscious. Rather, the SO account offers an explanation of what it is for a creature to be conscious of its mental states. Furthermore, since the SO account does not explain state consciousness in terms of higher-order inward consciousness, there is little reason to suppose that it must affirm, as the inclusive HOT position does, that animals are conscious that they have mental states, or to deny, as the exclusive HOT position does, that animals have conscious mental states. Quite the contrary, in fact. Since there is no apparent reason to deny, and perhaps some rather suggestive evidence to affirm,<18> that

animals are conscious *of what* they think and experience, there is no apparent reason to think that the SO account must deny that these creatures have conscious thoughts and experiences.

The SO account, then, offers a way of thinking about state consciousness that allows us to hold onto some rather intuitively plausible propositions. This alone, of course, does not prove that such a way of thinking about state consciousness is correct.<19> But, it does, I believe, offer a firm motivation to look more closely at the account to see if it is a viable contender to the established accounts of state consciousness endorsed by the HOT positions and the COLD position. As things stand, these established accounts may have reason to worry in the presence of their new, upstart sparring partner.<20>

Notes

<1>. For more on these distinctions, and those that follow, see Rosenthal (1997), Dretske (1995), and Carruthers (2000).

<2>. It should be noted here that by 'inward consciousness' I do not mean introspection, in the sense of paying deliberate attention to one's thoughts and experiences. To be inwardly conscious of one's thoughts or experiences does not require paying deliberate attention to them any more than being outwardly conscious of some external object (e.g., a book on a shelf) requires paying deliberate attention to it. See Rosenthal (1986) for a fuller treatment of the distinction between introspection and unreflective awareness of one's own mental states, which I call 'inward consciousness.'

<3>. State consciousness should not to be confused with another important class of properties of some mental states: phenomenal properties. Some conscious mental states, such as conscious sensations or feelings, have phenomenal properties -- that is, there is something in particular that it is like to have them -- while other conscious mental states, such as conscious thoughts, do not. There is nothing in particular that it is like to have a conscious thought; although, there certainly is something in particular that it is like to have the conscious feelings and emotions that accompany one's conscious thoughts.

<4>. It should be noted that Carruthers, unlike Rosenthal, endorses a *dispositional* HOT theory which identifies our consciousness of our mental states with our being disposed to form immediate higher-order thoughts about them. Since nothing I say in this paper turns on the difference between dispositional and non-dispositional HOT accounts, I take Rosenthal's account as the standard HOT account for the sake of expository simplicity.

<5>. There is much debate over whether even chimpanzees have thoughts about phenomena that they cannot observe, such as causal relations and mental states in conspecifics. So far the evidence is either controversial or strongly indicative that they do not have such thoughts (Povinelli, 2000).

<6>. Dretske assumes here that being conscious of one's experience does not affect (or need not affect) a change *in* one's experience, just as being conscious of one's cancer does not affect (or need not affect) a change *in* one's cancer. I shall assume, for the sake of argument, that he is right on this, provided that 'change in' is short for 'change in the experience's (or cancer's) *intrinsic* properties.' For being conscious of one's experience (or cancer) does affect a change in the experience's (cancer's) *extrinsic* (or relational) properties: they now have the property of being the object of one's awareness.

<7>. Nor do we see the painting as a painting.

<8>. And, we shall assume, she is not committing a Freudian slip of tongue.

<9>. Could someone, for instance, sincerely say, "It's raining, but I'm not aware *of what* I believe with regard to the rain and the present time"? It seems not. The oddity of assertions of the form, "a is F, but I am not aware *of what* I believe with regard to a and F," suggests, I believe, a tight connection between sincerely saying what one believes and being conscious *of what* one believes.

<10>. So far there is no evidence from developmental psychology that suggests that children younger than three years are capable of thinking about their own or other people's beliefs (Clements & Perner, 1994). And since children younger than three typically do not speak about their own or other people's beliefs (Shatz, Wellman, & Silber, 1983), it is quite conceivable that they do not yet think about their own or other people's beliefs.

<11>. One might raise the following concern here. "In being aware *of what* she believes, the child is aware of the intentional content of her belief. But, it is not obvious that this counts as any way at all of being conscious *of* the mental state, whether "as such" or not." But, I believe that the reason that things may seem unobvious here is the result of running the following together: (a) being aware *of what* a particular representation *r* represents, and (b) being aware of something which happens to be what a particular representation *r* represents. To see that these are different, consider the fact that what one sees on some occasion -- say, an outdoor window scene -- may very well be what a particular painting *x* represents, and yet it is far from obvious that this alone means that one sees what painting *x* represents, or even that one *sees* painting *x*. For one may not even be looking at painting *x* at the time. Similarly, a child may be aware of the fact that that is her dolly, and this fact may be what is represented by her token belief *b*, and yet it is far from obvious that this alone means that the child is aware of her token belief *b*. I grant this. But, in the case I describe above, I am assuming that the child is not simply aware of some fact which happens to be represented by one of her token beliefs. I am assuming, rather, that the child is aware *of what* her token belief *b* (the belief that that is her dolly) represents. And this, I contend, does mean that the child is aware of her token belief *b* -- though, of course, not as such.

<12>. This is not to say that she must know what it (the distal object) is that she is seeing -- though, she very well might. Knowing what the distal object of one's experience is is

not the same as being conscious *of what* (intentional content) one experiences. I might, for instance, not know what it (the distal object) is that I am perceiving on the side of the road. Is it a dead animal? A tire? Or am I just suffering from an illusion? Nevertheless, I am conscious *of what* (intentional content) I am experiencing: it involves a certain arrangement of various colors, luminosities, and shapes.

<13>. This is not to say that one is not also conscious of one's thoughts and experiences when one is conscious *of what* they represent.

<14>. This is not to deny, however, that blindsight subjects are not also unaware *that* they perceive certain objects or features in their scotomas. For they certainly are. The point here is simply that it is not this fact about blindsight subjects that makes their perceptual states unconscious.

<15>. Again, this is not to deny that such subjects are not also unaware *that* they hold such beliefs. The point is simply that it is not this fact about these subjects that makes their beliefs unconscious.

<16>. A more extensive account of these additional items appears in Lurz (2003).

<17>. Marcel (1998), for instance, remarks that "no matter how well a perceptual property is non-consciously represented, people who are not conscious of that perceptual property do not use it in intentional action and even resist such use" (p. 1585).

<18>. Many animals seem to attend to certain features of what they are perceiving (Riley & Roitblat, 1978; Andrew, 1976), which suggests that they are, to some degree, conscious *of what* they are perceiving in perceiving those features. In addition, there are findings from field studies on vervet monkeys (Cheney & Seyfarth, 1990) and laboratory studies on language-trained chimpanzees (Savage-Rumbaugh, 1986) and parrots (Pepperberg, 1999) that suggest that these animals are capable of expressing in their proto-languages their beliefs (and not just their emotional states) about items in their environments. If so, then it seems plausible to suppose that these animals are, to some degree, conscious *of what* they believe with respect to these items in their environments.

<19>. For a fuller defense of the SO account, see Lurz (2003).

<20>. I wish to thank David Rosenthal, Gene Witmer, Murat Aydede, Abe Witonsky, and M. J. Clarke for their helpful comments on an earlier draft of this paper.

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