

Delivered at the Oxford University  
Autumn School in Cognitive Neuroscience,  
October 2, 1998.  
© *David M. Rosenthal*

## THE KINDS OF CONSCIOUSNESS

*Abstract:* I begin by considering Ned Block's widely accepted distinction between phenomenal and access consciousness. I argue that on Block's official characterization a mental state's being access conscious is not a way the state's being conscious in any intuitive sense; that if phenomenal consciousness itself corresponds to an intuitive way of a state's being conscious, it literally implies access consciousness; and that Block misconstrues the theoretical significance of the commonsense distinction. These considerations point to the view that mental states' being conscious consists in their being accompanied by occurrent, assertoric thoughts to the effect that one is in the state in question: what I have elsewhere called higher-order thoughts (HOTs). After outlining the model, I sketch theoretical advantages having to do with introspective consciousness, the relationship between consciousness and speech, and the metacognitive phenomenon known as feeling-of-knowing judgments. I conclude by showing that the HOT model does justice to phenomenal consciousness: Sensory states are not all conscious, and HOTS explain why there is something it is like to be in those which are.

### *I. Kinds of Consciousness*

Crucial to a sound theoretical understanding of consciousness is the recognition that the words 'conscious' and 'consciousness' apply to distinct, if related, phenomena. These distinct phenomena are, moreover, often run together, resulting in confused theories and begged questions.

One such conflation is that between consciousness as applied to a person or other creature and consciousness as applied to mental states. A creature's being conscious means, roughly, that the creature is awake and responsive to sensory input. And in our

own case, being awake results in many of our mental states' being conscious states. This may encourage the idea that a creature's being conscious is the same thing as that creature's mental states' being conscious. But that cannot be so, since throughout ordinary, waking life we are in many mental states that fail to be conscious. Because being awake is a relatively unproblematic, biological matter, my focus here will be on what is involved in a mental state's being conscious--what, for convenience, I shall call *state consciousness*.

But Ned Block, in a number of important publications,<sup>1</sup> has forcefully argued that, when we describe a mental state as being conscious, there are two distinct things we may mean. We may have in mind what Block calls *phenomenal consciousness*, a kind of consciousness that qualitative states have in virtue of their having qualitative character. Or we may mean the property Block calls *access consciousness*, which amounts, in effect, to one's having a certain kind of mental access to a state. As Block spells this out, a state is access conscious if its content is, in his words, "poised to be used as a premise in reasoning, . . . [and] for [the] *rational* control of action and . . . speech."<sup>2</sup>

Block urges that failure to distinguish these two notions has been the source of considerable conceptual and theoretical mischief. Is this correct? Do these two notions illustrate another way in which the terms 'conscious' and 'consciousness' apply to distinct kinds of mental phenomena?

Here, I think, things are not quite so straightforward. There can be no doubt that Block's two notions correspond to a robust distinction in commonsense between two distinct types of mental occurrence, a distinction to which any satisfactory theory must do justice. It is far less obvious, however, exactly how this commonsense distinction should be understood. Block regards both phenomenal and access consciousness as properties of mental states--as two forms of what I am calling *state consciousness*. But even so, there are two distinct ways in which we can explain the difference between such forms of state consciousness.

One possibility, that favored by Block, is that phenomenal and access consciousness are two different ways in which a mental state can be a conscious state. On this way of construing our commonsense distinction, some mental states might well be conscious in *both* these ways. And, according to Block, that actually happens. Sensory, or qualitative, mental states are always phenom-

enally conscious and, independent of that, they may or may not be access conscious.

But there are problems with this way of understanding our intuitive, commonsense distinction. Consider a sensory state that, on Block's view, exhibits phenomenal consciousness but lacks access consciousness--for example, a pain to which we have no conscious access. Does such a state count as a *conscious state* in any intuitive sense whatever? Because our hypothetical pain lacks access consciousness, whoever has it will be wholly unaware of having it. For if one were in any way aware or conscious of the pain, that pain would satisfy Block's official account of access consciousness. One could then presumably use the pain's presence, in Block's words, "as a premise in reasoning, . . . [and] for [the] *rational* control of action and . . . speech."

One might interpret this rubric as providing only that the relevant subpersonal systems have access to the state. But that would yield at best a computational stand in for consciousness, since such systems have access to many states that intuitively are in no way conscious. So a pain or other phenomenally conscious state will lack access consciousness only if one is, oneself, in no way aware of that state. But if one is wholly unaware of a state, it's unclear why we would count that state as a conscious state at all. The commonsense distinction between mental states that are conscious and those which are not is based on whether one is or is not in some way aware of the state in question. If one isn't at all conscious of being in a mental state, that state is not a conscious state--at least not as we intuitively draw that distinction. Pains that lack access consciousness are conscious states only in some special sense that departs in important ways from our pretheoretic, commonsense intuitions about consciousness.

Pretheoretic intuition does not distinguish, moreover, between two ways in which mental states may or may not be conscious. So if we understand the difference between phenomenal and access consciousness as two distinct ways in which mental states may or may not be conscious, that distinction will not conform to our commonsense intuitions. Fortunately, there is another way to understand what underlies this important distinction. It need not be that being phenomenally conscious and being access conscious are different ways for states to be conscious. Rather, it may be that states that are phenomenally conscious or access conscious are conscious in exactly the same way. The difference may instead be that, independent of whether they are conscious at all, they are simply different types of mental state.

How does this work? Among conscious states, some, such as pains and perceptual sensations, have qualitative character, whereas others, such as thoughts and beliefs, do not. Typically intentional mental states lack sensory qualities. States such as desires, thoughts, doubts, wonderings, and hopes have no qualitative character, though individual intentional states may often be accompanied by qualitative states keyed in some way to the content and mental attitude of the intentional state in question.

Conscious mental states that do have qualitative character are, of course, paradigms of Block's phenomenal consciousness. What of the others, the conscious intentional states that lack sensory quality? Conscious intentional states are paradigms of Block's access consciousness: states whose content is "poised to be used as a premise in reasoning, . . . [and] for [the] *rational* control of action and . . . speech."<sup>3</sup>

The distinction just described is central from a common-sense, pretheoretic point of view and crucial for any satisfactory theory to capture. But that is not because there are two distinct ways in which mental states may or may not be conscious states. Rather, there are two kinds of mental state, which, when conscious in the way in which any mental state may be conscious, we experience very differently. Some are conscious *as having qualitative character*; we experience them in terms of their distinctive qualitative properties. Others we experience not in terms of any qualitative character but rather in terms of some intentional content and the attitudes we hold towards that content. Properly understood, the distinction has to do not with what it is for mental states to be conscious, but with the different types of mental state there are, independent of whether or not those states are conscious states.

Common sense dictates seeing the difference between phenomenal and access consciousness as a difference not between two ways in which mental states can be conscious, but between two types of mental state, either of which may or may not be conscious in one and the same way. But there are, in addition, important theoretical advantages to understanding the distinction this way. Whatever our theoretical approach, we must explain the difference between qualitative and intentional states even when those states are not, in any intuitive sense, conscious states. But the difference between the two kinds of mental state even when not conscious is by itself enough to explain the intuitive difference between the conscious cases. Why, then, also posit two different ways in which

each type of state may be conscious? Why sacrifice a unified treatment of state consciousness by repeating at a higher level the distinction between the two types of mental state?

There is a second theoretical reason why it's better to explain the distinction between phenomenal and access consciousness in terms of two types of mental state, rather than two ways in which mental states can be conscious. Any conscious mental state could, in principle, occur without being conscious. Even pains occur nonconsciously; we often have pains and aches that last all day, but go in and out of consciousness. Access consciousness matches our pretheoretic intuitions on this point, since any mental state can be access conscious or not. But a phenomenally conscious state cannot fail to be phenomenally conscious; every qualitative state automatically exhibits phenomenal consciousness. So the commonsense contrast between being conscious or not is absent for phenomenal consciousness. This reinforces the idea that phenomenal consciousness refers, after all, not to some specific kind of state consciousness, but rather to a kind of mental state, which, like any other mental state, can occur consciously or not consciously.

## *II. Higher-Order Thoughts*

The foregoing considerations point towards a unified, theoretically defensible treatment of state consciousness that does justice to the relevant phenomena and the intuitive distinctions among them. Recall that a mental state does not intuitively count as conscious unless one is in some way conscious *of* that state. Because of that, being conscious of a state is a necessary condition for that state to be a conscious state. This is not circular; we understand what it is to be conscious *of* something independently of understanding what it is for mental states to be conscious states.

We are, however, conscious of many mental states that are, nonetheless, not conscious states. Most obviously, we are sometimes conscious of other people's mental states even when those states aren't conscious. More pressing, we may also come to be aware of our own mental states without those states' being conscious. I may come to believe, for example, that I'm in some mental state because I believe what somebody else tells me or because I apply some theory to myself. We must explain, therefore, why mental states are typically not conscious when we are conscious of them in these ways.<sup>4</sup>

The traditional way to handle these cases is to stipulate that, for a state to be conscious, one must be conscious of it in some way that is direct or immediate. I am not directly conscious of others' mental states, nor of my own if I learn about them from you or by applying a theory to myself. In fact, something slightly weaker than the traditional answer will do here; apparent, subjective immediacy will handle these cases just as well as actual immediacy. So we must be conscious of our conscious states in a way that produces such apparent, subjective immediacy.

Such subjective immediacy aside, we must also say exactly how we are conscious of our mental states when those states are conscious. There are two ways we are ordinarily conscious of things, ways that correspond to the two kinds of mental state already distinguished. We are conscious of things when we see them or hear them or sense them in some other way. And we are conscious of things when we have thoughts about them. I may now, for example, be conscious of somebody in the audience by seeing that person, but I may instead be conscious of that person only by having a thought about the person. Which of these two ways is operative when we are conscious of our conscious mental states? When a mental state is conscious, is one aware of that state by sensing it or because one has a thought about it?

Here the traditional answer is unanimous. Thinkers from Locke to Kant and, in our own day, David Armstrong and William Lycan, have all opted for an inner-sense model of consciousness. Mental states are conscious, they maintain, just in case we perceive those states by some special form of inner sense. Despite this overwhelming convergence of opinion, however, I want to argue that an inner-sense model cannot work.

When one senses something, one is in a mental state characterized by having a certain mental quality, for example, the quality of subjective red or green. So being aware of something by sensing it happens only when one is aware of that thing in virtue of one's being in a sensory state with some suitable sensory quality. I am visually conscious of a red chair, for example, by having a visual sensation with the quality of subjective redness.

Every sensory modality, such as vision or hearing, exhibits a characteristic range of such sensory qualities. But there is no distinctive range of qualities in virtue of which we sense our conscious mental states. Indeed, there is often no mental quality at all involved when we are conscious of our conscious states; no qualities figure when we are aware of our thoughts or other inten-

tional states. And even when we are conscious of our sensations, the qualities that figure are those of the sensations we are conscious of, rather than the higher-order states in virtue of which we are conscious of them. This is obvious because the qualities belong to different families, depending on the modality of the sensation one is conscious of. No additional qualities occur that could pertain to a special sensory modality in virtue of which we are conscious of our sensations generally.<sup>5</sup>

We could, of course, discount for these purposes the role of mental qualities in sensing things. But that would undermine the very distinction between being conscious of something by sensing it and being conscious of that thing by having a thought about it. If our awareness of our conscious states involves no characteristic mental qualities, it is indistinguishable from our being conscious of those states by our having thoughts of some suitable sort about them.

We can conclude, then, that we are aware of our conscious mental states not by sensing them, but by having thoughts about them. To have a convenient label, I shall refer to the thoughts in virtue of which we are conscious of our conscious mental states as *higher-order thoughts* (HOTs).

This hypothesis suggests a ready explanation of the type of immediacy that characterizes our awareness of our conscious states. Recall that only apparent, subjective immediacy is required; our being conscious of our conscious states must seem spontaneous and uncaused. Such subjective immediacy results if the relevant HOTs are based on no inference--more precisely, if these HOTs are based on no inference of which one is aware.

There is some fine tuning that can be done here. HOTs may not be dispositional, for example, since being disposed to have a thought about something does not make one conscious of that thing. And it is arguable also that HOTs must have assertoric force. But I won't say more now about these points, turning instead, first, to a few ways in which the HOT model is theoretically useful and then, more important, to some remarks about how the model deals specifically with conscious qualitative states.

### *III. A Few Applications*

I have time this afternoon for only the briefest sketch of a few salient applications of the model. Many mental states in everyday

life are conscious. But occasionally mental states are, in addition to being conscious, subject also to that deliberate, attentive process we call introspection. The HOT model suggests an explanation of what is special about introspective consciousness. A mental state is conscious when it is accompanied by a HOT. But ordinarily that HOT is not itself a conscious thought; it would be conscious only when it, in turn, is accompanied by a HOT about it: a third-order thought. Introspection is the relatively rare case in which that actually does happen. We are then conscious not only of a mental state, but also that we are conscious of that state. The reason introspection is, intuitively, deliberate and attentive is that our HOTs seldom, if ever, become conscious except by a conscious act of deliberate attention.<sup>6</sup>

Whenever we speak sincerely, we express some thought that we have, a thought whose content is the same as what we say. If, for example, I say "It's raining," I express my thought that it's raining. But thoughts are often expressed by nonverbal behavior, as well; so my silently taking my umbrella may also express my thought that it's raining. Verbally expressing one's thoughts, however, has a consequence that nonverbally expressing them does not. Whenever I verbally express a thought, that thought is conscious; by contrast, thoughts are often expressed nonverbally without being conscious. My thought that it's raining is always conscious when I say that it's raining, but need not be if I simply take my umbrella.

Why is this? The traditional explanation posits a special connection between consciousness and speech, which led Descartes and others to conclude that nonlinguistic animals are never in conscious states. The HOT model, by contrast, provides a natural explanation with no such tendentious consequences.

Consider the sentences 'It's raining' and 'I think it's raining'. These sentences differ semantically; the first is literally about the weather, whereas the second is about my thoughts. But whenever one says it's raining, one could just as easily have said that one thinks it is; though the sentences 'It's raining' and 'I think it's raining' differ semantically, the conditions in which we use them to make statements are--for present purposes--the same. More important, this pragmatic equivalence, as we can call it, is a matter of well-entrenched linguistic habit.

Suppose, then, I say 'It's raining'. I might as easily have said 'I think it's raining'. And if I had said that, I would have verbally expressed not my thought that it's raining, but my

*higher-order* thought that I think it's raining. Since I might as easily have verbally expressed that HOT when I said 'It's raining', I must have had the HOT to express. Saying 'It's raining' is therefore sufficient to have a HOT about my thought that it's raining; so it's sufficient, on the HOT model, for that thought to be a conscious thought. The model explains, without appeal to gratuitous assumptions, why verbally expressed thoughts are invariably conscious thoughts.

For a final application of the model, consider the metacognitive phenomenon known to psychologists as feeling-of-knowing (FOK) judgments. An example is the sense we have that a word or some piece of information is on the tip of one's tongue. I may feel I have Mark Twain's real name on the tip of my tongue, though I cannot now produce it. What is it that happens in these cases?

The HOT model suggests an answer, and that answer, in turn, helps to refine the model itself. At a first pass, it may seem in these cases that one is conscious of being in some state or other that bears the relevant information without, however, being conscious of the particular informational state itself. But that cannot literally be what happens. Being conscious that one is in some state with the desired information is one way of being conscious of that informational state. It's just that one is not conscious of that informational state in virtue of the relevant information itself.<sup>7</sup>

Tip-of-the-tongue phenomena are striking because, despite our feeling that we know we are in some mental state with the desired information, that mental state is nonetheless not conscious. Consideration of these cases shows that mental states are not conscious states unless we are conscious of them *in respect of their specific informational content* or, with sensory states, their qualitative character.<sup>8</sup> The HOT model helps explain what happens when we make feeling-of-knowing judgments, and that phenomenon expands our understanding, in turn, of how the model works.

#### *IV. The Consciousness of Qualitative States*

Let me, in closing, turn to the special case in which the mental states that are conscious have qualitative properties. I mentioned earlier that qualitative states often occur without being conscious. Examples are long-lasting aches and pains of which we are, for a time, wholly unaware, and the perceptual sensations that

occur in peripheral vision and in exotic conditions that typically require laboratory detection, such as subliminal vision and blind-sight.

Many theorists deny that sensations can occur without being conscious, perhaps because qualitative character seems intuitively inseparable from consciousness. This may encourage Block's insistence that qualitative states are conscious in a way special to them even when we are wholly unaware of their occurrence. But the sole source of our intuition that qualitative character is inseparable from a state's being conscious is introspection, and introspection plainly cannot reveal what sorts of mental states can occur without being conscious. That can be settled that only by appeal to theoretical considerations.

Not only does consciousness fail to reveal all our qualitative states; it often doesn't reveal all the mental properties of states that are conscious. A pain, for example, may be conscious without one's being at all conscious of whether that pain is throbbing, sharp, or burning, and a sensation of red may be conscious without its being conscious in respect of any particular shade. In such cases the sensation is conscious as a pain or a sensation of red without being conscious as a particular type of pain or as a sensation of any particular shade of red. This helps explain why consciousness seldom reveals as much detail as we take in perceptually;9 we are seldom if ever conscious in a fully determinate way of the sensory states in virtue of which we perceive things. A sensation that's conscious only in respect of relatively coarse-grained qualities may sometimes, moreover, come to be conscious in respect of more fine-grained qualities, as when we attend to the sensation more carefully. The same sensation comes to be conscious as a sensation of the more fine-grained qualitative sort.

How is it possible for a sensation to be conscious in virtue of more or less fine-grained qualities? The HOT model provides the best explanation. For a sensation to be conscious in virtue of one or another quality is for one to be conscious *of* that sensation in a way that represents it *as having* the relevant quality. And the best explanation of that, in turn--given the absence of higher-order qualities--is that we have a thought about the sensation that represents it as having the quality in question.

With most sensory qualities, we have no idea how we come to discriminate them consciously, since we learn to do that so early

in life. But occasionally we learn to discriminate among types of conscious sensations much later, in adulthood. Consider the range of mental qualities we come to discern consciously when we learn about wines. We often come to be conscious of certain subjective qualities only when we have learned some terminology for the quality in question. This process is a matter of introspecting our qualitative states; so the qualities we come to discern in that way are those of our gustatory and olfactory sensations, and not the objective, nonmental properties of the wine itself.

How could learning words for mental qualities help us become conscious of those qualities? Why would our learning such words lead to our sensations' coming to be conscious *in respect of* those qualities? This could only happen if our having concepts for the various mental qualities were relevant to our sensations' being conscious in respect of those qualities. And presumably that would be so only if we are conscious of our sensations in virtue of accompanying HOTs we have about them, HOTs that represent the sensations as having the mental qualities in question.

When a sensation is conscious, there is something it's like for one to have that sensation. Block frames his concept of phenomenal consciousness so as to reflect this; a state is phenomenally conscious only if there is something it's like for one to be in that state. Because of this, phenomenal and access consciousness may fail even to be conceptually independent, as Block maintains they are. If one is in no way conscious *of* a mental state, there is nothing it's like for one to be in that state. And, assuming that Block's concept of access consciousness is, after all, some kind of state consciousness, and not just a computationally inspired stand in, a mental state's being access conscious will involve one's being conscious, in some relevant way, of that state. So a state's being phenomenally conscious literally implies that it is access conscious as well.<sup>10</sup>

Block sometimes describes access consciousness as an information-processing concept, reinforcing the worry that this notion may be no more than a computational surrogate for genuine state consciousness. Because one could not expect such a computational stand-in to capture the qualitative aspect of sensory states, a second kind of state consciousness is then needed for qualitative states. But neither notion does justice to the feature that underlies our intuitive conception of a state's being conscious, that one must be *conscious of* every such state.

Block insists that access consciousness is, after all, a

genuine way in which mental states can be conscious, and not just a computational surrogate. States are access conscious, on his official account, if their content is "poised to be used as a premise in reasoning, . . . [and] for [the] *rational* control of action and . . . speech." And this, he notes, resembles Daniel Dennett's idea that a state is conscious if it's broadcast throughout the brain, achieving a kind of "cerebral celebrity."<sup>11</sup> But such cerebral celebrity is not meant to describe a way in which mental states may be conscious, but to provide the basis of an subpersonal explanatory model for a state's being conscious. Moreover, many mental states that we would intuitively count as in no way conscious are nonetheless poised for the control functions Block mentions. So, if access consciousness is to count as any sort of state consciousness, it must involve one's being in some way conscious of the relevant state.

What is the status of the connection between a mental state's being conscious and one's being somehow conscious of it? Is that connection a conceptual matter, or due to the nature of what it is for a mental state to be a conscious state? We need not settle that question one way or the other. We can consider cases of mental states we would count intuitively as conscious and ask whether one might be in no way conscious of them. And we can also ask whether there are states we would regard as not conscious of which one might nonetheless be conscious in a way that seems to one both unmediated and spontaneous. It is enough for present purposes if the answers to these questions are negative, regardless of whether one regards that as due to conceptual connections or the nature of conscious states.

Questions about there being something it's like for one to be in conscious qualitative states may, however, lead also to doubts about whether HOTs can explain the consciousness of sensory qualities. If there is nothing it's like for one to be in a mental state when that state is not conscious, how could its being accompanied by a thought, of whatever sort, make the difference between a state's being conscious and its not being conscious?

The example of wine tasting helps here again. HOTs do make the difference between cases in which sensations are conscious in respect of more or less fine-grained qualities. They make the difference, that is, between there being something more or less fine-grained that it's like for one to have a particular conscious sensation. So it's reasonable to suppose that HOTs can also make the difference between cases in which there is something very rough and coarse-grained that it's like for one to have a particular

sensation and cases in which there is simply nothing at all that it's like for one to have that sensation.

Once again, the dictates of introspection are irrelevant here. Introspection can tell us only whether conscious sensations are accompanied by *conscious* HOTs, not by HOTs that aren't conscious. And on the present model, the HOTs that make the difference as to whether a target state is conscious or not need not themselves be conscious thoughts. Nor is it reasonable to object that we cannot see intuitively how HOTs would do this job. Pretheoretic intuition is seldom a good judge of theoretical models, and we are as yet in no position to have theoretically informed intuitions. It is likely, therefore, that the HOT model can do the theoretical work needed to explain consciousness.<sup>12</sup>

David M. Rosenthal  
City University of New York  
Graduate School  
Philosophy and Cognitive Science

### NOTES

1 "On a Confusion about a Function of Consciousness," *The Behavioral and Brain Sciences*, 18, 2 (June 1995): 227-247; "How Many Concepts of Consciousness?", Author's Response, *The Behavioral and Brain Sciences*, 18, 2 (June 1995): 272-287; "Biology versus Computation in the Study of Consciousness," (Author's Response to Continuing Commentary), *The Behavioral and Brain Sciences* 20, 1 (March 1997): 159-166; "How Not to Find the Neural Correlate of Consciousness," forthcoming in a volume of Royal Institute of Philosophy lectures; review of Dennett's *Consciousness Explained*, p. 184; "Begging the Question against Phenomenal Consciousness," *The Behavioral and Brain Sciences* 15, 2 (June 1992): 205-206; "Consciousness and Accessibility," *The Behavioral and Brain Sciences* XIII, 4 (December 1990): 596-598.

2 "On a Confusion," 231; emphasis Block's.

3 It is plausible to regard qualitative properties as constituting a kind of qualitative or sensory content. But Block's use of 'content' for only intentional content suggests that, on his official account of access consciousness, qualitative states cannot be access conscious unless they also have intentional content. It is unclear how that squares with Block's idea that qualitative states are often access conscious.

4 Typically because we may also be conscious of the states in a way that results in their being conscious states.

5 Presumably the higher-order sensing would itself typically fail to be conscious. We would therefore typically be unaware of any relevant higher-order qualities. Still, introspecting our mental states makes us aware of the higher-order states in virtue of which we are conscious of the states we introspect, and we would then be aware of any higher-order qualities that do occur.

6 Block distinguishes a third concept of consciousness, which he calls reflective consciousness (review of Dennett, p. 182) or monitoring consciousness ("On a Confusion," p. 235). A state is conscious in this way, acc to Block, if one has a HOT about it. But the states he counts as reflectively or monitoring conscious are states that we're introspectively conscious of: states we're actually conscious of being conscious of. This is a distinct kind of consciousness. Block is mistaken, moreover, to define it in terms of having HOTs, *simpliciter*. Rather a state has such monitoring consciousness only if the HOT one has about it is, itself, a *conscious* thought.

7 Grammatical considerations help here. Somebody who knows that Mark Twain's real name is 'Samuel Clemens' can be correctly described as knowing *what* Twain's real name is; somebody who knows that Scott wrote *Waverly* could be truly said to know *who* wrote those novels. When we describe somebody's knowledge by way of a 'wh' complement--a clause governed by 'what', 'who', 'how', 'when', 'where', and the like--we abstract from the full content of that knowledge. We specify the knowledge only in terms of some question to which the knowledge would provide an answer.

In ordinary situations, we can truly describe somebody as

knowing 'wh'--that is, as having knowledge specified with a 'wh' complement--only if the person has the relevant knowledge specified with a 'that' clause or its grammatical equivalent. Feeling-of-knowing experiences occur precisely when the relevant knowing *that* isn't conscious. Suppose I have Twain's real name on the tip of my tongue; I have the feeling of knowing *what* that name is without, however, knowing consciously *that* his real name is 'Clemens'.

The last three paragraphs of § III summarizes arguments I've developed at length in "Consciousness and Metacognition," forthcoming in *Metarepresentation: Proceedings of the Tenth Vancouver Cognitive Science Conference*, ed. Daniel Sperber, New York: Oxford University Press.

8 This helps answer an objection of Block's, that biofeedback training allows us to tell, e.g., when we are in a state of having, high blood pressure. Even though one has a thought based on no conscious inference that one is in a certain blood-pressure state, we don't regard that state as being conscious state (presentation by Block at the Conference on Methods in Philosophy and the Sciences, December 6, 1997). But this is no surprise, since tip-of-the-tongue and related cases show independently that for a state to be conscious one must be conscious of it in respect of its mental properties. That does not imply having a concept of the mental, since we can be conscious of a state in virtue of a mental property without thinking of that property as mental.

Block raised a related objection, according to which one might in such a way come, by biofeedback training to be noninferentially conscious of a repressed thought or desire whenever that thought or desire occurs. But if this did occur, it's not obvious that we wouldn't then experience the thought or desire as conscious.

9 It helps also with what, following Roderick Chisholm, is known as the problem of the speckled hen: why we typically perceive objects as being less determinate than they actually are. See Roderick M. Chisholm, "The Problem of the Speckled Hen," *Mind* 51, 204 (October 1942): 368-373. The problem is due originally to Gilbert Ryle, as reported by A. J. Ayer, *The Foundations of Empirical Knowledge*, London: Macmillan & Co, 1940, p. 124.

10 Block has objected that my use of 'for one' goes beyond what is involved in phenomenal consciousness, since he believes that it implies that one has access to oneself, which is unnecessary for phenomenal consciousness ("Biology versus Computation in the Study of Consciousness," 162). Block is correct that no explicit access to the self need occur with phenomenal consciousness. But the phrase 'for one' in the 'what it's like' rubric also implies no such explicit access, serving innocuously only to emphasize the subjectivity of phenomenal such consciousness. Only if there is something it's like *for one* to be in a particular state is that state subjectively conscious.

11 Daniel C. Dennett, "The Message is: There is no Medium," *Philosophy and Phenomenological Research* LIII, 4 (December 1993): 919-931, p. 929.

12 Section III summarizes arguments I've developed at length in "Explaining Consciousness," in *Philosophy of Mind: Classical and Contemporary Readings*, ed. David J. Chalmers, New York: Oxford University Press, 2002, pp. 406-421.