

The Independence of Consciousness and Sensory Quality

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It is often held that all sensory mental states are conscious states, and that sensory quality cannot occur in states that are not conscious. Indeed, it may seem mysterious what it could be for a state to have sensory quality if that state is not a conscious state. Consciousness, on this view, is something like a mental light, without which sensory qualities simply cannot exist. When it comes to the qualities of our sensory states, to be is to be conscious, *esse is percipi*.

If sensory states are all conscious, it may seem likely that the property of being conscious will be intrinsic, and essential, to having sensory quality; how better to explain why sensory states are all conscious than by assuming that being conscious is intrinsic to having sensory quality? On this picture, we can understand what it is for a state to have sensory quality only if we know what it is for that state to be conscious. And, if states with sensory quality are essentially conscious states, understanding what it is for sensory states to be conscious will presumably require knowing what sensory quality is.

Seeing the properties of being conscious and having sensory quality as thus wedded makes for unnecessary mysteries. What kind of property could it be that cannot occur except consciously? And what kind of property could the property of being conscious be if it is intrinsic to sensory qualities? Indeed, it is arguable that all the traditional problems about sensory or phenomenal quality derive from the idea that being a conscious state is intrinsic to having sensory quality. What seems difficult or intractable about sensory quality is the face it presents to consciousness — what the sensation is like for somebody who has it.

I shall argue that this picture is mistaken. The properties of being conscious and having sensory quality are independent of one another, and a satisfactory account of each property requires us to investigate them separately. In section 1, I argue that, since sensory states are not all conscious states, being a conscious state cannot be intrinsic to that state's having sensory quality. Section 2, then, puts forth a sketch of an account of what it is for a mental state to have sensory quality, an account on which having sensory quality does not imply being conscious. Moreover, as I show in section 3, this account helps explain, and thereby disarm, the intuitive force of the idea that being conscious is an intrinsic property of sensory states. In section 4 I conclude by arguing for a positive account of what it is for sensory states — and, indeed, for all mental states — to be conscious. On this account, a state's being conscious is its being accompanied by a roughly simultaneous higher-order thought that one is in the target mental state. So being conscious is an extrinsic property of those mental states which are conscious. If this account is correct, and if sensory states can occur without being conscious, we can conclude that the properties of being conscious and having sensory quality are independent of one another.

1 Are All Sensory States Conscious?

Descartes notoriously held that “no thought can exist in us of which we are not conscious at the very moment it exists in

us.”¹ It is often assumed that this Cartesian doctrine reflects our commonsense concept of mind, for sensory states as well as for thoughts. That is not so; commonsense plainly does allow room for mental states that are not conscious states. We sometimes see that somebody wants something or thinks that something is so while that person is wholly unaware of that desire or thought. Similarly with emotions; we occasionally recognize that we are sad or angry only after somebody else points it out to us. It is natural to interpret subliminal perception and peripheral vision as showing that perceptual sensations can occur without our being aware of them.² It is arguable that even bodily sensations such as pains can at times go wholly unnoticed, and so can exist without being conscious. When one is intermittently distracted from a headache or pain, it is natural to speak of having had a single, persistent pain or ache during the entire period. It would be odd to say that one had had a sequence of brief, distinct, but qualitatively identical pains or aches. Similarly for itches and other bodily sensations.

Pragmatic factors explain much of the intuitive pull towards thinking that sensory states are always conscious states. For one thing, our concern with the mental states of others is set in a social context that largely precludes remarking on mental states of which they are unaware. So in ordinary circumstances we tend not to pay explicit attention to such states. And of course we normally disregard whatever nonconscious sensory states we ourselves may be in.

Moreover, the intuitive idea that mental states are invariably conscious is far stronger with some types of mental state

¹ *Fourth Replies, Oeuvres de Descartes*, ed. Charles Adam and Paul Tannery (Paris: J.Vrin, 1964-75) VII, 246. Also: “the word ‘thought’ applies to all that exists in us in such a way that we are immediately conscious of it” (Geometrical Exposition of the *Second Replies*, VII, 160). Descartes’s reference to thoughts was meant to cover all mental states of whatever kind.

² We all typically screen out the sounds of conversations other than our own. But, on the so-called cocktail-party effect, if one’s name is mentioned in a screened-out conversation, one’s attention often shifts immediately to that conversation. It is natural to interpret this as showing that one must have had some auditory consciousness of what was being said.

than it is with others. And it turns out that the stronger this intuition is with a particular kind of mental state, the less interest we would have in nonconscious cases of that type of mental state. The idea that mental states must be conscious is strongest with bodily sensations such as pains and tickles, less compelling with perceptual sensations, presumably still less so with emotions, and very likely weakest with intentional states such as thoughts and desires. Correspondingly, we have the least interest in nonconscious bodily sensations, whether our own or anybody else's, and far the most in nonconscious beliefs and desires, because of their role in explaining behavior. This reinforces the diagnosis that we think mental states must be conscious largely because of our lack of interest in the nonconscious cases.

Still, these considerations may not seem sufficient to disarm completely the intuition that sensory states must be conscious. This is especially so in the case of bodily sensations such as pain. For one thing, we speak roughly interchangeably of our feeling a pain or tickle or itch and of our having the relevant sensation. And when we feel a pain or tickle or itch, must not that sensation be automatically conscious?

Such terms as 'feeling' do carry this implication of consciousness; a felt pain is perforce a conscious pain. This is true as well of something's hurting, and perhaps even of one's being in pain. But none of these things are the same as one's simply having a pain, or a pain's existing. If we are intermittently unaware of a pain by being distracted from it, we feel the pain only intermittently; similarly with its hurting and our being in pain. Still, one may well speak of having had a pain that lasted throughout the day. And if the question arises in a natural way, one may even say explicitly that one was not always aware of that pain. Common sense thus undeniably countenances the existence of nonconscious pains.³

³One could insist here that only a single, temporally discontinuous state of pain occurs, on the model of the temporally discontinuous bursts of sound as a single siren sound. (I owe this idea to Jaegwon Kim.) But all I am arguing here is that common sense be open to nonconscious pains; plainly common sense does not insist on the discontinuous-pain interpretation.

We cannot of course know what it is like to have a non-conscious pain or tickle or itch.⁴ But that is not relevant here. The reason we cannot know what it is like to have, for example, a nonconscious pain is simply that unless the pain is conscious there is no such thing as what it is like to have it. What it is like to have a pain, in the relevant sense of that idiom, is simply what it is like to be conscious of having that pain. So our not knowing what it is like to have pains that are not conscious cannot show that all pains are.

Nonetheless, reflection on what it is like to have sensations does suggest an important source for the view that sensations are invariably conscious. When we classify sensory states and discriminate among their various tokens, we appeal to what it is like for us to be in those states. This is equally so with bodily and perceptual sensations; we rely on such things as what it is like to be in pain, and what it is like to see red or hear a trumpet. And there is no such thing as what it is like to have these sensations unless the sensation is conscious.

If we do pick out sensory states by appeal to what it is like to be in those states, how can there be sensory states for which there is no such thing as what it is like to be in them? If the properties by reference to which we taxonomize and individuate sensory states occur only when those states are conscious, how can those states ever be nonconscious?

Care is necessary here. We do classify and discriminate among sensory states by appeal to the conscious cases. But this does not show that the properties by reference to which we classify sensory states cannot occur nonconsciously. Compare the situation in perception. We pick out physical objects, and thus classify and discriminate among them, by reference to how they appear to us. And there is no such thing as how a physical object appears to us if nobody perceives it. In the case of vision, for example, there is no such thing as the visual appearance of a physical object if nobody sees

⁴See Thomas Nagel's important article, "What Is It Like To Be a Bat?", *The Philosophical Review* LXXXIII, 4 (October 1974): 435-450. See also Nagel's "Panpsychism", in *Mortal Questions* (Cambridge: Cambridge University Press, 1979), pp. 181-195, and *The View From Nowhere* (New York: Oxford University Press, 1986), chapters 1-4.

that object. Nonetheless, physical objects do have enduring properties in virtue of which they look to us as they do. One can say that the contribution physical objects make to how they look to us is their having certain colors or, more precisely, their having characteristic reflectance spectra. Physical objects have these properties whether or not anybody sees them.

Parallel remarks hold for sensory states. We classify such states by reference to what it is like to be in those states. What it is like to have a certain sensation is how that sensation appears to us. So, as with physical objects, we pick out sensory states and discriminate among them on the basis of how they appear to us. And the foregoing considerations give us no reason to insist those states which appear to us as they do cannot occur except when they are conscious states.⁵ We fix the extensions of terms for physical objects by relying on appearances that may or may not reflect the actual nature of those objects. Similarly, we fix the extensions of our terms for the various kinds of sensory state by way of the conscious cases, both our own and those of others, but this in no way shows that all sensory states are conscious states.⁶

⁵ Just as we can say of unseen objects how they would look, we can equally well say what it would be like to be in sensory states that are not currently conscious.

⁶ On the notion of fixing extensions, see Saul A. Kripke, *Naming and Necessity* (Cambridge, Mass.: Harvard University Press, 1980), pp. 54-9; "Identity and Necessity", in *Identity and Individuation*, ed. Milton K. Munitz (New York: New York University Press, 1971): 135-164, pp. 156-161; and Hilary Putnam "The Meaning of 'Meaning'", in Putnam's *Philosophical Papers*, vol. 2 (Cambridge: Cambridge University Press, 1975): 215-71, pp. 223-35. Both Kripke and Putnam maintain that, in general, what fixes the extension of a term need not coincide with what is essential or necessary to the things in that extension.

Kripke's notorious denial of this for the case of mental states ("Identity and Necessity", 157-161; *Naming and Necessity*, 149-154) stems from his insistence that the way pains appear to us cannot diverge from how they really are: "For a sensation to be *felt as pain* is for it to *be pain*" ("Identity and Necessity", p. 163, n. 18; emphasis original throughout) and, conversely, that "for [something] to exist without being *felt as pain* is for it to exist without there *being any pain*" (*Naming and Necessity* p. 151). Thus "[i]f any phenomenon is picked out in exactly the same

Sensory qualities, on anybody's account, are properties that distinguish sensory states, both from one another and from everything else. All and only sensory states have sensory quality, and the various types of sensory state differ in respect of their sensory qualities. So if sensory states occur that are not conscious, being conscious cannot be intrinsic to having sensory quality.

It is crucial to avoid a merely verbal issue. Some find it tempting to hold that the term 'sensory quality' can apply only to those qualities by reference to which we say what it is like to have one or another conscious sensation. If so, nonconscious states plainly cannot have sensory quality. Similarly, sensory states might be held to be definitionally conscious states.

These convictions in no way suggest, however, that nonconscious states do not exist corresponding to sensory states. Indeed, it is natural to suppose that such nonconscious states do exist, since neural detection mechanisms must subserve conscious sensation, whatever the nature of sensation may be. Moreover, for neural states to subserve sensory states, it must be possible to taxonomize these nonconscious states so that they resemble and differ from one another in ways isomorphic to the similarities and differences among conscious sensations. Call these nonconscious states *s*-states, and call the properties of belonging to the equivalence classes defined by this taxonomy *s*-properties. What reason could there be, then, other than arbitrary verbal fiat, to withhold the terms 'sensation' and 'sensory state' from these non-conscious *s*-states? And what nonverbal reason could there be for refusing to apply the term 'sensory quality' to nonconscious *s*-properties?

Common sense often sees the important properties of things as being intrinsic to them. This tendency is especially pronounced when we know little or nothing about the nature

way that we pick out pain, then that phenomenon *is* pain" (*Naming and Necessity*, p. 153). But Kripke's contentions are correct only if it is necessary that pains affect us in the way they do, i.e., only if being conscious is intrinsic to something's being a pain. Kripke gives no independent argument for these claims.

of those properties. Thus common sense finds congenial the pre-Galilean view according to which bodies move toward a natural resting place, and having a particular natural resting place is an intrinsic property of each kind of body. It is inviting to see bodies as intrinsically tending toward upwards or downwards movement.⁷

Still, we get far more accurate and powerful explanations of bodily motions if we see a body's tendency to move in terms of its relations to other bodies. Similarly, it is pretheoretically appealing to see the property of being conscious as intrinsic to sensations. But as I shall argue in section 4, it is likely that we can explain what being a conscious state consists in only if we regard being conscious as a relational property.

2 What Is Sensory Quality?

The foregoing considerations will, however, remain inconclusive without at least the sketch of a suitable positive account of what it is for mental states to have sensory quality. It must be possible, on such an account, for mental states to have sensory qualities whether or not those states are conscious states. Sensory qualities will occur even when sensory states are not conscious. But when states with sensory qualities are conscious, there will be something it is like to be in those states, and sensory qualities will be the properties in virtue of which that is so.

The distinctive qualities by means of which we classify sensations form families of properties that pertain to color, visual shape, sound, and so forth. The members of these families resemble and differ from one another in ways that parallel the similarities and differences among the corresponding perceptible properties of physical objects. For example, the red sensory quality of visual sensations resembles the orange

⁷Similarly, Michael McCloskey has elegantly and convincingly argued that ordinary commonsense predictions about bodily motions systematically err in ways that reveal the tacit false assumption that those motions are due to an internal force imparted by the source of motion. ("Intuitive Physics", *Scientific American* 248, 4 [April 1983]: 114-122.)

sensory quality of such sensations more than either resembles the sensory green or blue of such sensations. This is so whatever else is true about such sensory qualities. A host of other relations characterize both physical color properties and the corresponding mental color properties. There is no reason to think that individual color properties of visual sensations resemble intrinsically the color properties of physical objects. Rather, it is the whole family of mental color properties that corresponds, by virtue of the relations that hold among its members, to the family of physical color properties. And it is in terms of these relations of resemblance and difference within the corresponding families that we understand the nature of both mental and physical colors.

Parallel remarks apply to the spatial properties that pertain to vision. Here it is plain that the spatial properties of physical objects have nothing intrinsic in common with the corresponding properties of visual sensations. The property of being physically round, for example, does not resemble the corresponding property of visual sensations. Still, because color cannot occur without shape, visual sensations cannot have mental colors unless they have some property that counts as the mental counterpart of physical shape.⁸ Just as with mental and physical color, mental roundness and triangularity resemble and differ from each other in ways homomorphic to the similarities and differences that hold between physical roundness and triangularity. Similar observations hold for other properties of shape⁹ and other sensory modalities.¹⁰

⁸ And, since mental shape is plainly a different sort of property from physical shape, the connection between color and shape shows that mental color is a different sort of property from physical color.

⁹ These mental analogues of physical spatial properties may well enable us to assign mental location to our visual impressions, in virtue of which they unite to form a single visual field.

¹⁰ Various historical antecedents for these observations are available. Berkeley held that at least some terms for sensible qualities fail to apply to things univocally. Thus 'plane' and 'solid' apply primarily, on his view, to the immediate objects of touch, and only derivatively to the objects of sight. Berkeley sometimes seems to claim that such terms are radically ambiguous, as when he writes that the visual and tactile

Such parallels hold also in the case of bodily sensations. Consider pains. The distinctive qualities of being dull, stabbing, burning, or sharp resemble and differ in ways that reflect the similarities and differences among the corresponding physical objects and processes. Moreover, piercing and stabbing pains are both species of sharp pains, and typically result from piercing and stabbing objects or processes. Similarly, throbbing and pounding pains are species of dull pains.¹¹

It is important to emphasize that the parallels to which I am drawing attention involve the perceptible properties of physical objects, as these are conceived by commonsense. We must take care not to import into our commonsense notion of these physical properties aspects that have only to do with how those properties appear to us. But subject to that qualification, the present theory takes commonsense perceptible

objects to which we apply these terms are “of a nature intirly different”. But he also insists that planes and solids are both “equally suggested by the immediate objects of sight, [and] accordingly are themselves denominated plains and solids” (*A New Theory of Vision*, sec. 158, in *The Works of George Berkeley*, ed. A. A. Luce and T. E. Jessop [London: Thomas Nelson and Sons Ltd., 1948], vol. I).

In *Essays on the Intellectual Powers of Man* (ed. Baruch A. Brody [Cambridge, MA: The M.I.T. Press, 1969], II, xvi) Thomas Reid claims that, when I smell a rose, “the sensation I feel, and the quality in the rose which I perceive, are both called by the same name...; so that this name has two meanings” (243). “All the names we have for smells, tastes, sounds, and for the various degrees of heat and cold, have a like ambiguity.... They signify both a sensation, and a quality [in physical objects] perceived by means of that sensation” (244).

And in “A Reply to My Critics”, G. E. Moore insists that all words for sensible qualities are “each used in two very different senses” to refer to perceptible properties of physical objects and to the qualities of sensory experiences (*The Philosophy of G. E. Moore*, ed. Paul Arthur Schilpp [LaSalle, Illinois: Open Court, 1942: 535-677, p. 657; see pp. 655-8).

¹¹For more detail on this kind of account, see my “Armstrong’s Causal Theory of Mind,” in *Profiles: David Armstrong*, ed. Radu J. Bogdan (Dordrecht: D. Reidel Publishing Co., 1984), pp. 79-120, §V: 100-108; my Review of *Perception: A Representative Theory*, by Frank Jackson, *The Journal of Philosophy* LXXXII, 1 (January 1985): 28-41; and “The Colors and Shapes of Visual Experiences”, Report No. 28/1990, Center for Interdisciplinary Research (ZiF), Research Group on Mind and Brain, University of Bielefeld, esp. §II.

properties at face value. This is natural; the properties in terms of which we classify sensory states are themselves commonsense properties, and are part of our macroscopic way of cutting up reality.

Moreover, such reliance on commonsense properties is legitimate in the present context, since we can hope to reconstruct these commonsense properties tolerably well in terms of scientific properties and processes. Thus we can capture the commonsense colors of physical objects in terms of the spectral reflectance of those objects multiplied by the absorption spectra of the three light-sensitive elements in the daylight visual system. An object's looking green, for example, will consist in its reflecting a distribution of wavelengths that results in a specifiable ratio of activation among those three types of cones. So an object's being green would consist in its reflecting such a distribution of wavelengths under standard conditions —say, in cloudless, midday sunlight.¹² We must still adjust for variations due to individual differences and conditions of solar illumination. But such idealizations are common in the scientific reconstruction of commonsense, macroscopic categories.

Does this mean that we can simply dispense with our commonsense conception of physical color when it comes to comparing those properties with the mental properties of visual states? Those comparisons rely on similarities and differences in the two families of properties; mental color properties resemble and differ from one another in ways homomorphic to the similarities and differences among physical color properties. Some of these parallels between the two families can be expressed in terms of *ratios*, rather than physical color conceived in commonsense terms. For example, when a first color is intuitively closer to a second than to a third, the corresponding *ratio* will very likely exhibit parallel relations.

¹²Because many different combinations of wavelengths can produce the same *ratio*, the specific reflective properties of objects that produce a particular *ratio* in particular conditions of illumination may vary widely. So objects that look the same in respect of color when illuminated by daytime sunlight, e.g., may well seem to differ in color in other conditions of illumination.

But it may well be that important relations among members of the commonsense color family cannot be captured in terms of how close one is to another. Perhaps a scientific taxonomy of these properties will not sustain all the relevant parallels between those properties and the corresponding mental qualities. If so, we may to this extent have to retain our commonsense conception of physical color. This is not a problem, however, for the present account. We still can hope to identify each such color that we can discriminate mathematically, in terms of the relevant *ratio* of activation among the three cone types. So there will be a scientific reconstruction that legitimates the normal range of commonsense physical color properties.

These observations form the basis of a sketch of what it is to have sensory quality. Sensory qualities are properties of states of organisms, families of which bear certain systematic relations to families of properties of physical objects and processes to which the organism can respond. Moreover, they are properties of which we can be conscious, in the intuitively immediate way in which we are conscious of our own mental states. Nothing in this account implies that sensory qualities can occur only when the relevant sensory states are conscious states. Moreover, since consciousness does not figure in the account, being conscious is presumably not intrinsic to a state's having sensory quality.

The overall thesis I am defending is that the properties of being conscious and having sensory quality are independent of each other. That thesis is independent of the particular account of sensory qualities I have just sketched. Any account will do on which sensory qualities are whatever properties are distinctive of the various types of sensation, properties of which we can, but need not, be conscious in a suitably immediate way.

A question arises, however, about accounts that meet this condition. Can such an account do justice to the traditional notion of sensory quality, and the traditional problems attendant on that notion? Or have we simply changed the subject, by substituting a watered-down, unproblematic notion of sensory quality for the traditional concept, and thus defined the problems away?

One way to approach this question is to ask whether such an account would square with the idea that the properties under consideration are genuinely qualitative. Being qualitative is not a very clear notion, but presumably a property's being qualitative means in part that the property is essentially the way consciousness reveals it to be. In any case, there is another example of a family of properties that common sense regards as qualitative, namely, the color properties of physical objects. Here, too, being qualitative expresses the idea that the properties in question are exactly as consciousness—in this case perceptual consciousness—reveals them to be.

Many have held that, whatever the appearances, we need not attribute genuinely qualitative colors to physical objects. We can, after all, relocate the apparent qualitative character of physical color inside, in the mind: We can say that the relevant properties of physical objects are not genuinely qualitative, but that they lead to visual sensations, whose distinctive properties are.

It is often pointed out that we cannot repeat this move; there is no place to relocate the qualitative character that the distinctive properties of sensory states seem to exhibit. But that does not matter. We need not find some way to preserve the idea that color is qualitative. We are willing to deny qualitative color to physical objects because we accept that their qualitative character, however we interpret it, is merely apparent. It is a verdict of commonsense intuition on which we should not rely. We can say the same for the commonsense intuition that the distinctive properties of sensory states are qualitative. The inability to relocate the qualitative character of the mental properties of sensory states gives us no reason to insist that those mental properties really do have qualitative character. We need not preserve the "element of truth" in erroneous commonsense intuitions when we become convinced that these intuitions reflect only how things appear, rather than how they really are.

In any case, common sense tells us little if anything about the sensory qualities of sensory states, except that they are those properties in virtue of which we distinguish among those sensations, and that we can be more or less immedi-

ately conscious of them. Our knowing about these properties in the first instance by way of the conscious cases does not show that they cannot occur nonconsciously, nor that there is anything problematic about them. Common sense does not sustain the idea that sensory quality is problematic.

Nor is there reason to hold that the similarities and differences on which that account relies cannot obtain except when the sensation in question is conscious. We can accurately and fully capture these similarities and differences on the basis of the relevant homomorphisms, independently of whether the sensory states in question are conscious. So we have no basis for denying that sensory qualities can occur nonconsciously. Nonconscious sensory states resemble and differ in just the ways that conscious sensory states do. They diverge only in that one group is conscious and the other not.

3 Why It Seems that Sensory Qualities Must Be Conscious

It may be difficult to dismiss the idea that sensory properties are qualitative unless we can explain the attraction that idea has for us. Being qualitative, as just noted, expresses the idea that a property is essentially the way consciousness reveals it to be. And that suggests in turn that sensory qualities are invariably conscious. Why, after all, would consciousness reveal the essence of sensory states if such states need not be conscious?

Consciousness seems to reveal the essence of sensory qualities only because it is tempting to suppose that consciousness is our only source of knowledge about the nature of those properties. Take color. It is often held that the term 'red' applies in the first instance to a mental property of visual sensations and derivatively, if at all, to a perceptible property of physical objects.¹³ We understand what it is for a tomato to

¹³ John Locke, *Essay Concerning Human Understanding*, III, iv, 16; Roderick M. Chisholm, *Perceiving: A Philosophical Study* (Ithaca, NY: Cornell University Press, 1957), chapter 4; Frank Jackson, *Perception: A*

be red solely by way of the tomato's having causal connections with red sensory states. Since our saying a tomato is red is then only a kind of shorthand for its having a certain tie to the mental red of sensory states, we cannot learn about that mental red from its connections to anything nonmental. We can learn about mental color only by distinctively mental means. The only available mental avenue to these properties is knowing what it is like to be in the relevant sensory states, and this depends on the relevant states' being conscious. This line of reasoning suggests that consciousness alone can reveal the nature of mental qualities, so that only conscious states can have these qualities.

The sketch of an account put forth in section 2 undermines this picture. On that account, the sensory qualities of sensations resemble and differ from one another in ways that parallel the similarities and differences that hold among the corresponding perceptible properties of physical objects. So knowing what it is like to be in a sensory state is not the only way to understand the nature and character of sensory qualities. We can, instead, learn about them by way of their characteristic similarities and differences, which are homomorphic to those which hold among the corresponding perceptible properties of physical objects. In particular, we can in this way know such things as that mental red resembles mental orange more than either resembles mental green or blue. Similarly for qualities special to other perceptual modalities, and to bodily sensations.

The resulting understanding of mental qualities is not restricted to the relational properties of those qualities. The similarities and differences that hold among the qualities of a particular sensory modality help characterize that modality. And within each modality, the similarity and difference relations characteristic of each mental quality help fix what is distinctive of that quality. These relations thus help us grasp the nature of the various individual qualities. Knowing the relations that define the various mental color properties, for example, will help fix what it is for a sensory state to be

Representative Theory (Cambridge: Cambridge University Press, 1977), especially chapter 6.

mentally red. Although these relations cannot tell us what it is like to experience a sensory quality, they can tell us much about what it is for a state to have such qualities.

4 Explaining Consciousness

It might be thought that, if being conscious is intrinsic to a state's having sensory quality, at least that helps us understand what it is for sensory states to be conscious.

In fact the opposite is the case. If being conscious were an intrinsic property of sensory states, it is unlikely that we could get any informative explanation of what their being conscious consists in. No useful explanation will be possible unless we can represent the property of being conscious as having some articulated structure. But it will be hard to justify the idea that being conscious is an intrinsic property of conscious states if that property does have some informative structure. Once we assign some such structure to the property of being conscious, it will be at least as plausible to regard being conscious as an extrinsic property of mental states. So the only non-question-begging reason to see consciousness as an intrinsic property of mental states would be that it lacks such structure, and is thus simple and unanalyzable. And something's being simple effectively precludes our explaining it by appeal to anything else; simple properties are those we take to be primitive in our hierarchies of explanation.¹⁴

¹⁴Franz Brentano's idea that a mental state's being conscious is due to its being in part about itself is a rare attempt to assign informative structure to being conscious, conceived of as an intrinsic property. (*Psychology from an Empirical Standpoint*, tr. Antos C. Rancurello, D. B. Terrell, and Linda L. McAlister [London: Routledge & Kegan Paul, 1973], p. 129–130.) But he gives no reason for his insistence that this awareness of conscious mental states is intrinsic to those states; and if it is not, the resulting theory is virtually indistinguishable from that for which I argue below. Other, more decisive difficulties for Brentano's view are noted in my "A Theory of Consciousness" (Report No. 40/1990, Center for Interdisciplinary Research [ZiF], Research Group on Mind and Brain, University of Bielefeld), at the outset of §VII.

In any case, an account is possible of what it is for a sensory state to be conscious on which being conscious and having sensory quality are independent properties. The account applies equally well to all mental states, whether intentional or sensory, but I shall concentrate here on the sensory case.

If a state is conscious, we are conscious of being in that state. The converse also holds, at least if we are conscious of being in the mental state in a suitably unmediated way. Ruling out reliance on inference and observation will capture that intuitive immediacy.¹⁵ So it is reasonable to hold that for a mental state to be conscious is for one to be conscious in a suitably immediate way of being in that state.

There are two ways we can be conscious of things: By perceiving them, and by having thoughts about them. The perceptual model of being conscious of something cannot help here. Perceiving involves characteristic sensory qualities. So on a perceptual model, a state's being conscious will involve some characteristic quality; otherwise the comparison with perception would be idle. Since sensory states need not be conscious, their sensory qualities are independent of their being conscious. So the characteristic quality that, on the perceptual model, being conscious introduces must be distinct from the sensory qualities that sensations already have. But then it is a mystery what those new qualities could be.¹⁶

The only alternative is that a mental state's being conscious consists in one's having a thought that one is in that very mental state, a thought based on neither observation nor inference. (Henceforth I omit this qualification.) On this theory, the relevant higher-order thought will not itself be a conscious thought unless we have a yet higher-order thought. This explains why we are generally unaware of such higher-order thoughts. It also allows a ready distinction be-

¹⁵We need not rule out inference and observation of which we are unaware. This exception is not circular, since I explain a mental state's being conscious by reference to an independent notion of being conscious of something.

¹⁶These concerns are reminiscent of Aristotle's question about whether or not the sense we use to see that we see is same as the sense of sight (*de Anima* III 2, 425b13-4).

tween a mental state's being introspectively and nonintrospectively conscious. Mental states are introspectively conscious if the relevant higher-order thought is itself a conscious thought.¹⁷

The relevant higher-order thoughts must be assertoric, since intentional states with other mental attitudes can occur without our being conscious of anything.¹⁸ Nor does having a disposition to have a thought normally result in one's being conscious of anything. So it is probable that only occurrent intentional states with assertoric force will do.¹⁹

Relatively weak conceptual resources will suffice for a higher-order thought to refer to one's own sensory states. We refer in thought to physical objects by way of their position in our visual field. It is natural to suppose that thoughts can similarly refer to sensory states by way of their position

¹⁷Being conscious of something may appear to be factive. Since perceiving, unlike thinking, is arguably factive, perhaps the perceptual model is, after all, superior. But if the relevant consciousness really is factive, we can stipulate that our higher-order thoughts are as well. Moreover, there is reason to doubt that the way we actually are conscious of our conscious mental states guarantees truth; special views about privileged access notwithstanding, we can and do make mistakes about what conscious states we are in.

¹⁸If I doubt or wonder whether some physical object is red, I am conscious of the object; similarly if I expect, hope, or desire that it is. So perhaps if one doubts or wonders whether a mental state has some particular property, or hopes, desires, or expects that it does, one will thereby be conscious of the mental state. But it is not the doubt, wonder, hope, or desire that makes us conscious of the object. If I doubt whether that object is red, or desire or suspect that it is, I must at least think assertorically that the object is there. Similarly with doubting, hoping or expecting that my mental state has some property; I must at least have the assertoric thought that I am in that state. Having these nonassertoric attitudes will not make one conscious of being in that state except by leading to one's have an affirmative thought that one is in that state.

¹⁹A particular property may be described in both dispositional and nondispositional terms. Relative to the categories of folk psychology, we need nondispositional states to make mental states conscious; but at a subpersonal level we might describe those states in dispositional terms. I am grateful to Daniel Dennett for arguing the virtues of a dispositional treatment, and for much useful conversation on these topics in general.

in the relevant sensory field. Something of this sort presumably explains how higher-order thoughts can be about sensory states even though conscious differentiation of sensory detail quickly outstrips our conceptual resources.

Elsewhere I have argued that a theory based on higher-order thoughts can save the phenomenological appearances at least as well as one can with the Cartesian idea that being conscious is intrinsic to mental states generally, and to sensory states in particular.²⁰ In closing I shall indicate two ways this is so in the case of sensory states.

Some phenomenological data pertaining to sensory states are very likely harder to explain if we assume that being conscious is intrinsic to sensory states. There are sensory states that are conscious only some of the time, largely through shifts in attention, for example, pains from which we are temporarily distracted or auditory sensations that we screen out. The idea that being conscious is intrinsic to sensory quality in effect rules out such shifts between a state's being conscious and its not being conscious, presumably requiring some reinterpretation of the data; we might say, for example, that such sensations do not literally persist. But it is probable that such gerrymandering will make a satisfactory explanation harder to come by.²¹

Other data seem even less amenable to reinterpretation on which being conscious is an intrinsic property of conscious

²⁰ "A Theory of Consciousness"; "Two Concepts of Consciousness", *Philosophical Studies* 49, 3 (May 1986), pp. 329-359; "Thinking that One Thinks", forthcoming in *Approaches to Consciousness*, ed. Glyn Humphreys and Martin Davies (Oxford: Basil Blackwell); "Why Are Verbally Expressed Thoughts Conscious?", Report No. 32/1990, Center for Interdisciplinary Research (ZiF); and "Consciousness and Higher-Order Thought", Report, forthcoming/1990, Center for Interdisciplinary Research (ZiF).

²¹ Another example relies on a surprising fact about vision. Our visual field seems replete with visual detail throughout. This is because eye movements provide foveal vision over a wide area, and we retain the visual information thus gained. Nonetheless, at any given moment we are aware of little visual detail outside the center of our visual field. It is natural to speculate that our seeming to see much of this detail may in effect be due to our confabulating detailed visual sensations. Such confabulation would be far harder to understand if being conscious were intrinsic to sensory states.

states. We are often aware of more fine-grained differences among sensory qualities when we have more fine-grained conceptual distinctions at our disposal. Vivid examples come from wine tasting and musical experience, where conceptual sophistication seems actually to generate experiences with more finely differentiated sensory qualities. The present theory predicts this. The degree to which we are conscious of differences among sensory qualities depends on how fine grained the concepts are that figure in our higher-order thoughts. The relevant sensory states may well have been conscious before one acquired the more fine-grained concepts, but conscious only in virtue of less subtle qualities. It is unlikely that we can explain these observations except by a theory that appeals to higher-order thoughts.

On the present theory, consciousness is not only not essential to mentality; it is an esoteric development of mental capacities. Still, the intuition may persist that consciousness is somehow central to the way we think about the mind. Can we do justice to that intuition, if not by saving it at least by explaining why we have it?

As noted earlier, one way that consciousness is central to our concept of mind is that we fix the extensions of our terms for mental states, and indeed of the term 'mental' itself, by way of the conscious cases of mental states. But consciousness figures in an even more important way. Though it does not demarcate the distinctively mental, it is arguable that it provides the basis for our intuitive mark of being a person. We are the only creatures we know of that we regard as persons, but we can easily imagine discovering others that we would classify with ourselves in that way. It is not, of course, that only persons have conscious mental states; many nonhuman animals presumably do, as well. There is no reason to deny to animals without language the capacity to have suitable higher-order thoughts. The relevant higher-order thoughts do not require much richness of conceptual resources or syntactic structure.²²

²²Moreover, as Daniel C. Dennett has noted, the behavior of non-linguistic animals sometimes indicates the presence of higher-order

But we have no reason to suppose that animals other than persons are aware of whatever higher-order thoughts they may have. And if none of an animal's higher-order thoughts are conscious, it will lack the particular kind of reflective consciousness that involves some measure of rational connectedness in the way it is aware of its mental states. Being a person will, on this account, be a matter of degree, but that is as it should be. Our distant ancestors doubtless had the distinctive characteristics of people to some degree, though not as fully as we do, and the same may well be true of other creatures elsewhere.²³ Though consciousness is not essential to mentality, it is very likely crucial in this way to our concept of being a person.

The foregoing considerations suggest that a theory based on higher-order thoughts will very likely be able to save the

thoughts. ("Conditions of Personhood", in *The Identities of Persons*, ed. Amelie Oksenberg Rorty, Berkeley and Los Angeles: University of California Press, 1976: 175-196, pp. 183-4.) Dennett's cases involve one animal's having a thought about another animal's thought, which in turn is about some distinct thought of the first animal. Direct evidence that an animal without language has a thought about another of its own thoughts, however, may seem difficult to come by. For methodological ideas about this kind of problem, see Lawrence Weiskrantz, "Some Contributions of Neurophysiology of Vision and Memory to the Problem of Consciousness", in *Consciousness in Contemporary Science*, ed. A. J. Marcel and E. Bisiach, Oxford: Oxford University Press, 1988: 183-199, pp. 194-197.

²³It is worth comparing the present account of being a person to that put forth by Harry G. Frankfurt ("Freedom of the Will and the Concept of a Person", *The Journal of Philosophy* LXVIII, 1 (January 14, 1971): 5-20. Frankfurt holds that what distinguishes persons is their ability to have higher-order desires that some particular one of their first-order desires be effective in leading to action (6-7, 11-2). He argues that forming such higher-order desires involves identifying oneself with one, rather than another, of one's first-order desires (13). Roughly, such identification is, he maintains, what is involved in the process of deciding (16), and being able to identify oneself with one's desires in this way is also what is distinctive of being a person (16). But forming decisions is not the only way one identifies oneself in mental terms. Being a person is, rather, the more general ability to be conscious of one's thoughts that one is in a particular mental state. Consciously thinking that one is in a particular mental state is consciously identifying oneself as that being which has that mental state.

phenomenological appearances pertaining to sensory quality. Moreover, on that account, a state's being conscious is an extrinsic property of that state. Our having good reason to explain a mental state's being conscious by appeal to accompanying higher-order thoughts thus helps sustain the view that a state's being conscious and its having sensory quality are independent properties.²⁴

²⁴I am grateful, for helpful conversation about a related paper, to the participants of the August 1989 Joint Conference of the Sociedad Filosófica Ibero Americana and the Sociedad Argentina de Análisis Filosófico, in Buenos Aires.

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