

## philosophy and the study of consciousness

ask a question, I approach her empathically as another 'I'; but when I suddenly realize 'she' is a wax figure, I no longer experience 'her' as another 'I', but only as a figure made of wax.

*Intersubjectivity.* I live in a world with others, wherein I experience objects around me as there for others as well as for me. When I see that tree on which a vulture has landed, part of my sense of the tree as meant in this experience is its being there for others to see as well. I can walk closer to the tree, I can walk around it for a better view of the vulture, and I implicitly understand that another person, another subject, could see the tree and approach it from different sides for a better view, just as I can. In that sense the world around me, including trees and birds and other human beings, is an intersubjective world. My cultural circumstances, too, living in today's zeitgeist, are part of the intersubjective world around me.

*Horizon of experience.* When I see a tree, the tree is presented or intended in my experience as transcendent of my current visual experience, so that in seeing it I expect the tree to have further possible properties (e.g. regarding its back side), features beyond those I explicitly see or intend in this passing experience. This 'horizon' of possibilities for further experience of the same object is an implicit part of the content or meaning of my current experience. Indeed, this horizon structure frames all the above structures of consciousness, as experienced from the first-person perspective. Thus, an horizon of implicit significance frames my experience of sensible objects, temporality, spatiality, the flow of my experience, the varied objects I encounter in nature and in culture, other people I meet and interact with, the intersubjectivity of our common world, even my own awareness of my passing act of consciousness (on horizon see Smith and McIntyre 1982, Smith 2007).

### 5. Conclusion

There is of course much more to phenomenology than can be indicated in this brief introduction. Importantly, the practices of science, philosophy, and art all address in various ways the structures of consciousness whose appraisal is by definition the business of phenomenology. Phenomenology by any other name remains phenomenology—with or without adopting the language of pure phenomenology, bracketing, etc.

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**philosophy and the study of consciousness** Consciousness has always figured in philosophical discussions of the mind, but it is only relatively recently that philosophical writers have developed detailed theories about the nature of consciousness.

The development of such theories has arguably depended on an important advance in thinking about consciousness. In everyday life we typically restrict attention to thoughts, desires, perceptions, and feelings that are conscious. Indeed, most traditional philosophical writers, from Aristotle through René Descartes to Franz Brentano, have assumed without argument that such states do not occur without being conscious.

In the late 19th century, however, theorists came to recognize what novelists and playwrights have always known, that thoughts, desires, and emotions sometimes occur unconsciously. Individuals sometimes have thoughts, desires, and emotions without being in any way aware of them. Even sensations and perceptions occur subliminally, i.e. without being conscious. The recognition that all these states sometimes fail to be conscious has led to a fruitful focus on what distinguishes states that are conscious from states that are not, a question that would not arise if one denied that mental states ever occur without being conscious.

Focusing on this question has led to a second advance in thinking about consciousness. We use the term 'conscious' to apply to three distinct, independent phenomena. We call a person or other creature conscious when it is awake and responsive to sensory stimulation. But we also speak of people and other creatures as conscious of something when the person or creature senses or perceives that thing or has a thought about it as being present. And we refer, finally, to some mental states as

conscious, in contrast with those mental states of which an individual is wholly unaware.

The view that mental states are invariably conscious encourages assimilating these three phenomena. On that view, the states in virtue of which one is conscious of something are all themselves conscious states. And it is then natural to think of conscious states as simply mental states that a conscious creature is in.

But mental states do sometimes occur without being conscious; so we cannot assimilate these three phenomena in this way. Many mental states that occur in conscious, waking life are not conscious states. And sensing something subliminally is a way of being aware of that thing, though not, as we might say, consciously aware of it. Only if we are conscious of the things we sense subliminally can we explain why we respond psychologically to those things, and why they sometimes affect our behaviour.

Distinguishing these three phenomena has been crucial to coming to have a satisfactory theoretical understanding of each. Our understanding of what it is for a creature to be conscious (e.g. Tononi and Cirelli 2003, Hill and Tononi 2005) does not appeal to mental states' being conscious or to creatures' being conscious of things. And our understanding of perceiving and thinking, in virtue of which one is conscious of things, has progressed largely independently of whether the perceiving or thinking is conscious. The following discussion will address only that third question, about what it is for a mental state to be conscious.

Findings in experimental psychology and cognitive neuropsychology have over the last few decades greatly expanded and deepened our understanding of the consciousness of mental states. Experimental work on \*blindsight, masked \*priming, \*change blindness, and confabulation, all discussed below, have revealed much about the way mental states occur both consciously and non-consciously, and about the difference between the two kinds of occurrence.

Still, work in philosophy has much to contribute as well. For one thing, such work often gives detailed and penetrating descriptions of the common-sense psychological phenomena that scientific research must address and explain. Also, work in philosophy characteristically proceeds at a relatively abstract level, drawing connections with theories of related phenomena, so that work is often useful in discussing competing theories of consciousness both in abstraction from specific empirical findings and in relation to other relevant theories.

Work in philosophy is thus often continuous with that in the relevant sciences, differing largely in focus and emphasis. These continuities enhance the contributions

each makes to the other, as well as their joint contributions to our overall understanding of consciousness.

1. Traditional theories
2. First-order theories
3. Global workspace and the function of consciousness
4. Inner sense
5. Other higher-order theories
6. Qualitative consciousness
7. Consciousness, timing, and speech

#### 1. Traditional theories

René Descartes (1596–1650) regarded all mental phenomena as special cases of thinking, and claimed that 'no thought can exist in us of which we are not conscious at the very moment it exists in us' (Descartes 1964–75:VII, 246). We are conscious, he insisted, of all our mental states.

Descartes had little to say, however, about exactly how it is that we are conscious of our concurrent thoughts. John Locke (1632–1704) agreed with Descartes that no mental state occurs without one's being conscious of it, and indeed maintained that it is unintelligible to think otherwise. But Locke pressed further than Descartes in trying to explain the exact way we are conscious of our mental states, urging that '[c]onsciousness is the perception of what passes in a Man's own mind' (Locke 1690/1975:115 [II, i, 19]). Locke thereby echoed Aristotle's idea that 'if we perceive, we perceive that we perceive, and if we think, that we think' (Aristotle 1984:II, 1849 [1170a32]). Locke called such perceiving of our mental states *internal sense* (1690/1975:05 [II, i, 4]), but most today use Immanuel Kant's term *inner sense* (Kant 1787/1998:174 [A22/B37]).

Franz Brentano (1838–1917), also heavily influenced by Aristotle, advanced a different view about the way we are conscious of our mental states. He held that not only is each mental state about its ostensible object; it is also literally about itself. Each mental state is in that way a consciousness of itself. Brentano (1874/1973) held that the aspect of each mental state that is about itself is purely intentional; one is conscious of all one's mental states because internal to each state is a thought about that state itself.

Brentano also followed Descartes and Locke in thinking that mental states are all conscious. But where Locke insisted that it is unintelligible to suppose that a mental state could occur of which one is unaware, Brentano held that this is intelligible, but simply never happens. Still, both strove to do justice to Descartes's idea that consciousness is essential to mentality, Locke by insisting on the unintelligibility of non-conscious mental states, and Brentano by urging that the consciousness of each mental state is internal to that state itself.

Common to all these thinkers is the view that one is conscious of all one's mental states. This occurs by perceiving each state according to Locke, by having a thought about each state according to Brentano, and according to Aristotle by perceiving in the case of conscious perception and by having a thought in the case of conscious thinking. Among these theorists, only Brentano describes mental states as 'being conscious', as against states one is conscious of. But they all plainly have the same phenomenon in mind. And on all their views, a state's being conscious in effect consists in having a higher-order awareness of that state.

### 2. First-order theories

It is convenient to call being conscious of something *transitive consciousness*, because of the grammatical object. We can then describe the claim that a state's being conscious consists in one's being in some way conscious of that state as the *transitivity principle* (henceforth TP).

TP has strong common-sense appeal. If somebody has a thought, perception, or feeling but is wholly unaware of having it, we do not regard that state as conscious. And that is logically equivalent to TP: a state is conscious only if one is in some suitable way conscious of it. If TP is correct, a satisfactory theory must specify in what way we are conscious of those of our mental states that are conscious states.

Most contemporary theorists follow philosophical tradition in adopting TP, differing mainly about how it is that we are conscious of our conscious states, that is, about how TP is implemented. But some have contested TP, arguing that a state's being conscious does not consist in being conscious of that state. Such views are often called *first-order theories*.

Despite TP's common-sense appeal, there are also compelling common-sense reasons to challenge it. For one thing, it does not seem subjectively that we are generally aware of our conscious states, as against being conscious of the things those states represent. In particular, as John R. Searle has argued (Searle 1992:95–6), it does not seem that we ever observe our conscious states, contrary to what the inner-sense theory maintains. Searle concludes that TP is incorrect.

Advocates of TP, however, have answers to these challenges. Doubtless we never do literally observe our mental states, but observation is not the only way to be conscious of things. So TP might well be true because we are aware in some other way of our conscious states. Indeed, TP might be true even though it seldom seems subjectively that we are aware of our conscious states. We are sometimes conscious of things even when the states in virtue of which we are conscious of them are not conscious states. This happens with subliminal perception; we are aware of the things

we perceive subliminally, but not consciously aware of them. So it is possible that conscious states are states we are aware of, but we are not typically conscious of that higher-order awareness of our conscious states.

Fred Dretske has advanced an elaborate argument that conscious states are not states that one is conscious of. One sometimes sees two scenes that differ in some slight way, but without being conscious of their differing in that way. The two scenes might be alike except that one scene has ten trees and another only nine. Dretske (1993) urges that in such a case one has a conscious visual experience of the tenth tree even though one is unaware of that conscious experience. The experience of the tenth tree would then be a conscious experience even though one is not conscious of it.

Scenes that differ in some unnoticed way are common in everyday experience, and are the focus of experimental work on change blindness, in which subjects fail to see consciously salient changes in scenes (Grimes 1996, Dretske 2004, Simons and Rensink 2005). Still, it is arguable that Dretske's argument does not undermine TP. One can be conscious of something in one respect and not another. So it might well be in Dretske's case that one is conscious of the experience of the tenth tree only as a part of the overall experience of the scene, but not conscious of it as a way in which the two overall experiences differ. If so, it would not be a counter-example to TP.

Daniel C. Dennett has argued that TP presupposes an unrealistic hierarchy of psychological states (Dennett 1991:Ch. 10). Being in a mental state results in things seeming a certain way to one. But because there is no difference, Dennett maintains, between how things seem to one and how they seem to seem, we cannot make clear sense of the idea that our mental states themselves appear to us in particular ways (1991:132). But subliminal perceiving does result in things seeming to us in particular ways even though we are unaware of that seeming. So a second level of awareness does arguably occur when such perceiving is conscious.

### 3. Global workspace and the function of consciousness

Conscious states typically seem to interact in a relatively global way with one another, and to have a widespread effect on our mental lives and on behaviour. And some theorists hold that these widespread interactions serve to distinguish conscious states from mental states that are not conscious.

Thus Ned Block distinguishes a class of states he calls *\*access conscious* as those whose content is 'poised to be used as a premise in reasoning, . . . [and] for [the] rational control of action and . . . speech' (Block 1995:231; cf. 2005,

2007). Dennett has epitomized this idea with his remark that '[c]onsciousness is cerebral celebrity' (1993:93); conscious states are those which have a global effect on memory, behavior, and other psychological functioning. These ideas echo the \*global workspace theory of Baars (1988), which has been developed in neuropsychological terms by Dehaene and Naccache (2001) and Tononi (2004).

The idea that conscious states differ from mental states that are not conscious in being connected to a high degree with various psychological functions fits well with a particular view about why mental states are sometimes conscious and the function that their being conscious may have. It is tempting to hold that conscious states enhance our rationality in thought and practical planning, and that they would do this by having global connections with other mental states. And, if the consciousness of states does enhance rational thought and planning, that function might help explain how the consciousness of mental states could have been selected for evolutionarily.

Such theories in effect reject TP, since a state could have global connections without one's being in any way conscious of that state, and conversely. Robert Van Gulick has developed a version of global workspace theory on which the global connections make one conscious of oneself (Van Gulick 2004). But it is unclear even that his view implements TP, since being conscious of oneself need not result in one's being conscious of any particular mental state one is in.

TP aside, it is in any case arguable that global workspace theories fail. Many states that we do not count as conscious have global connections to many other mental states and to behaviour, e.g. many non-conscious desires and beliefs. And many indisputably conscious states, such as conscious peripheral perceptions, have at most minimal connections with other mental states and with behaviour. Global connectedness may be typical of many conscious states, but it is not a distinguishing mark of a state's being conscious.

It is also unclear that we can explain the function of consciousness by appeal to its ability to enhance rational thought and planning. The intentional content of beliefs and desires by itself arguably suffices for those states to have many causal ties with other mental states, causal ties that subserve most rational thought processes. And because these causal ties depend solely on intentional content, they occur whether or not the states are conscious.

Edmund T. Rolls has argued that correcting multi-step inferences requires higher-order mental monitoring that would result in the steps' being conscious (Rolls 2004). But it is unclear that the causal ties intentional states have to one another would not suffice, or that

consciousness significantly enhances the causal connections that subserve rational thinking.

It is tempting to assume that consciousness enhances rationality because it seems that being conscious of one's mental states would enable one to rearrange those states rationally, much as one can rearrange objects when one is perceptually conscious of them. But it is unlikely that this metaphor can be sustained. So rational connections may well be largely independent of consciousness.

#### 4. Inner sense

It is widely agreed that a satisfactory theory of consciousness must somehow do justice to TP. The inner-sense theory, on which a mental state is conscious in virtue of one's having a higher-order perception of that state, is the most commonly adopted way of implementing TP. It has been forcefully defended by D. M. Armstrong (1980) and William G. Lycan (1996).

Sensing and perceiving is very likely the first thing to come to mind when one thinks of being conscious of things. So it is natural to understand TP in terms of sensing or perceiving one's conscious states. The idea that we perceive our conscious states, moreover, may seem tempting as a way to explain the conscious qualitative character of many states. Also, it is inviting to hold that our awareness of our conscious states serve to monitor our mental states, much as ordinary perceiving monitors external and bodily conditions. This monitoring analogy between mental states' being conscious and perception is often held to constitute another advantage for the inner-sense theory.

But there is room for doubt about the inner-sense theory. Sensing and perceiving always involve mental qualities, but no mental qualities figure in higher-order states in virtue of which we are conscious of our conscious states. The mental qualities essential to ordinary perceiving enable us to perceive physical objects, not mental states, and no other mental qualities are available for perceiving mental states. The mental qualities that occur in qualitative consciousness are qualities of the states we are conscious of, not the states in virtue of which we are conscious of them.

The difficulty about mental qualities is underscored by noting that we are typically conscious of experiences in a way that groups together perceptions from several sensory modalities. But since every mental quality is special to a single perceptual modality, it is unclear how one could perceive an experience as involving several different modalities. Nor is it obvious how one could perceive purely intentional states, such as thoughts, which altogether lack qualitative character.

Armstrong and Lycan both advance representationalist views of perceiving, on which perceiving involves no

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mental qualities. Instead, perceiving has only intentional content that pertains to the perceptible properties of physical objects and events. This theory of perceiving obviates the need for mental qualities to figure when we perceive our conscious states. But \*representationalism about perceiving is at best controversial. And even if it is correct and perceiving does involve no mental qualities, the advocate of inner sense must still show that we are conscious of our conscious states in a way that is significantly more like perceiving than like having thoughts about the relevant states. Lycan (2004) has argued that this is so, mainly by appeal to volitional and attentional factors, but many thoughts also exhibit the features he cites as special to perceiving (Rosenthal 2004:§III).

There is also some question about whether the appeal to monitoring does show that our awareness of our conscious states is more like perceiving those states than like having thoughts about them. For one thing, inner sense is not the only way we might monitor those states; since any way of being conscious of those states suffices for monitoring, thoughts about those states would do as well.

In addition, there are cases in which our awareness of our conscious states seems to play no monitoring play. As Richard E. Nisbett and Timothy DeCamp Wilson (1977) have shown, we are sometimes conscious of ourselves as being in particular mental states even when there is compelling evidence that we are not. Since monitoring is evidently not operative in these cases, the best explanation of them is that such confabulatory consciousness serves to construct a picture of our mental lives that makes sense to ourselves or to others, or that justifies our behaviour. The inner-sense model of consciousness thus remains controversial.

### 5. Other higher-order theories

An alternative way to implement TP can be found in the view that we are aware of our conscious states by having thoughts about them. Having a thought about something as being present to one does make one conscious of that thing. So having a \*higher-order thought (HOT) that one is in a particular state will result in one's being conscious of that state.

Brentano held that view, adding that the thought one has about each conscious state is a part of that state itself. This intrinsicalist version of the HOT theory squares with the intuition that underlies first-order theories, that a state's being conscious involves nothing beyond that state itself. The intrinsicalist HOT theory has received contemporary support from Rocco Genaro (2004) and Uriah Kriegel (2006; see also other essays in Kriegel and Williford 2006).

One reason advanced for this intrinsicalist view is that, if we are conscious of our mental states by way of distinct higher-order states, those higher-order states might represent the first-order states inaccurately. Indeed, the higher-order states might even occur without any relevant first-order state at all. And it is tempting to think that intrinsicalism precludes these awkward possibilities. But even if higher-order content is intrinsic to a state, it could misrepresent that state's other mental properties, and such higher-order content might even occur in a state that has no other mental properties. So intrinsicalism does not by itself rule these things out.

Intrinsicalism holds that the higher-order intentional content in virtue of which one is conscious of a conscious state belongs to the state itself, rather than to a distinct state. Whether that is so depends on how we individuate intentional states. We do not do so by the content of the states, since a single state may have compound content that conjoins several simpler contents. Rather, we individuate intentional states by appeal to their mental attitude, such as believing, wondering, desiring, and the like; no single state has two distinct mental attitudes.

But an assertoric mental attitude is needed for one to be conscious of something; doubting or wondering about something does not make one conscious of that thing. So a conscious doubt must involve two mental attitudes, the doubting itself and the assertoric attitude in virtue of which one is conscious of the doubt. Higher-order content must accordingly belong to a distinct HOT.

Closely related to intrinsicalism is a dispositionalist version of the HOT theory advanced by Peter Carruthers (2000), on which a state is conscious if one is disposed to have a HOT about it. Like intrinsicalism, this dispositionalist theory avoids commitment to distinct, occurrent higher-order states. Carruthers argues that actual HOTs would in effect replicate the first-order states, and would strain our cognitive capacities. But it is unlikely that actual HOTs would come close to exhausting the relevant cortical capacity. Nor in any case do HOTs replicate the first-order content, since the content of HOTs would be about the first-order states, not whatever those states are themselves about.

There is also an issue about whether a dispositionalist theory can actually implement TP at all, since simply being disposed to have a thought about something does not result in one's being conscious of that thing. Carruthers seeks to meet this difficulty by appeal to a theory on a which state's intentional content depends in part on what other mental states the state is disposed to cause. If a state is disposed to cause an actual HOT, it has HOT content itself. But on this theory, no state

that is even disposed to cause an actual HOT could fail to be conscious.

If the difficulties with inner sense and with the intrinsicist and dispositional versions of the HOT theory cannot be met, the most credible alternative for implementing TP is a theory that posits distinct, occurrent HOTs, a view advanced by David Rosenthal (2005).

Consciousness represents our mental states in more or less fine-grained ways. Distinct HOTs permit such flexibility in the ways we are conscious of our mental states. Such HOTs also may explain the sense we have that our conscious states are unified in a single center of consciousness. Each HOT would have the content, 'I am in such-and-such a state'. And it is natural, absent countervailing factors such as those in \*dissociative identity disorder, to take the 'I' in all one's HOTs to refer to a single individual (Rosenthal 2005:Ch. 13).

## 6. Qualitative consciousness

The most serious challenge any theory of consciousness faces has to do with conscious qualitative states. When a state with qualitative character, such as a bodily sensation or a perception, is conscious, there is 'something it is like' for one to be in that state (Nagel 1974). Giving an informative explanation of such conscious qualitative character seems to encounter difficulties.

One apparent difficulty, noted by Locke (1690/1975:389 [II, xxxii, 15]), is that it may seem that when we sense the same stimulus, the conscious mental qualities that occur in each of us may differ in ways that defy detection. One person's spectrum of conscious mental colour qualities, for example, might be inverted in undetectable ways relative to that of another person. Our access to conscious mental qualities would then be restricted to the way we are conscious of them, and it would then be unclear how conscious qualitative character could be informatively explained.

Indeed, if conscious qualitative character is thus independent of physical constitution and functioning, individuals identical to us in those ways might have no conscious mental qualities at all. This apparent possibility has been stressed by David J. Chalmers and others, and seems to raise difficulties for explaining conscious qualitative character by appeal to anything physical. Chalmers (1996) calls this the \*hard problem of consciousness.

A third difficulty is that it is tempting to suppose that somebody who has never seen chromatic colour but knows everything physical there is to about such colours would nonetheless learn something new upon first seeing red, namely, that this is what it is like to see red (Jackson 1986; see KNOWLEDGE ARGUMENT). These and other related difficulties have suggested to some

that no informative explanation of conscious qualitative character is possible, that an \*explanatory gap separates conscious mental qualities from everything else (Levine 2001).

As noted in section 4, representationalist theories avoid these difficulties, since they deny that mental states have mental qualities. Perceiving, on this view, simply represents the presence of the perceptible properties of various objects (Harman 1990). But the way perceiving represents perceptible properties plainly differs from, and goes beyond, the way in which thinking represents those properties, and it is unclear why the additional factor in perceiving does not count as mental qualitative character.

It is arguable that the difficulties just rehearsed all result from assuming, as these authors do, that qualitative character cannot occur without being conscious. But there is compelling reason to hold that non-conscious states do sometimes have mental qualities. In subliminal perceiving, blindsight (Weiskrantz 1997) and masked-priming experiments (Marcel 1983), subjects respond psychologically to stimuli in ways that reflect their perceptible properties. Conscious perceptions, moreover, register these perceptible differences by corresponding differences among their mental qualities. So it is natural to suppose that non-conscious perceptions also have the very same mental qualities, even though we are not aware of them.

It may well be that higher-order theories of consciousness are better suited to give an informative explanation of conscious qualitative character than first-order theories, since higher-order theories posit two levels of awareness. On those theories, qualitative states unaccompanied by a suitable higher-order state will not be conscious; there is nothing it is like for one to be in such a state. It is being conscious of the state in a suitable way that results in there being something it's like for one to be in it.

This receives support from noting that the way one is conscious of perceptual states does make a difference to what it is like for one to be in those states. For example, learning new words for olfactory or auditory experiences that are new to one can result in one's being conscious of those experiences in new, more fine-grained ways; what it is like for one actually comes to be different. So it is not implausible that being conscious of a qualitative state is responsible for there being anything at all that it is like for one to be in a state.

Some theorists have argued that higher-order theories encounter a particular difficulty in the case of conscious qualitative states. As Levine (2001:§4.4) notes, a higher-order awareness may sometimes misrepresent one's mental states; one will be conscious of oneself as being

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in a state that one is not actually in. And Levine argues that this is problematic for cases in which the higher-order state misrepresents a qualitative state, say, by representing a sensation of a red as a sensation of green. Would the result be subjectively like consciously seeing red? Or subjectively seeing green? But this objection arguably overlooks the way TP functions. Since a state's being conscious is a matter of one's being conscious of that state, what it's like for one will be a matter simply of how one is conscious of the state. What it is like for one is a matter of what state the higher-order awareness makes one conscious of oneself as being in.

Ned Block has distinguished the *access consciousness* in virtue of which states figure in rational thought, action, and speech (see section 3) from what he calls *phenomenal consciousness*, which is distinctive of states that have some mental quality (Block 1995, 2005, 2007). Block's distinction has been influential in both philosophical and scientific discussions, since qualitative consciousness is plainly a special phenomenon. Still, there are issues about exactly what phenomenal consciousness consists of. In particular, it may be that phenomenal consciousness as Block conceives of it may occur in subliminal perception, which is not conscious in any common-sense, intuitive way. If so, phenomenal consciousness is simply a state's having mental qualities, which evidently need not occur consciously.

### 7. Consciousness, timing, and speech

Dennett (1991) has forcefully argued that our subjective impressions are the last word about the nature of conscious states, and that when those impressions conflict, there is in that respect no fact of the matter about the nature of the relevant conscious states. He advances strikingly vivid arguments for this conclusion in connection with the timing of conscious states (Dennett 1991:Ch. 5).

Higher-order theories again offer a salutary flexibility. Since we can distinguish the time one becomes conscious of a state from the time that state occurs, these questions may get distinct, but equally determinate answers (Rosenthal 2005:Ch. 12).

Indeed, work by Benjamin Libet (1985) and Patrick Haggard (1999) has shown that when we consciously decide to do something, the neural event that initiates the action occurs prior to that conscious volition. Libet has also shown that even though subjects' conscious experiences of somatosensory stimulation can occur as much as 500 ms later than the actual stimulation, subjects experience them as occurring earlier, within 10–20 ms of the actual stimulus. The best explanation of these striking results is that volitions and bodily sensations are distinct from, and may occur at a different time from, the events of being conscious of those volitions and sensations.

Our common-sense test for somebody's being in a conscious mental state is that the person can report being in that state in a way that seems non-inferential, a test that also underlies much work in experimental psychology. When a subject reports not sensing a stimulus but can guess with high accuracy about it, investigators conclude that the subject does sense the thing, but does not do so consciously. This happens, for example, in blindsight (Weiskrantz 1997) and in masked-priming experiments (Marcel 1983).

Not all conscious states are reported, and presumably many creatures with conscious states lack any capacity to report them. What explains, then, the connection between consciousness and reportability? The best explanation is that reports of mental states, when they do occur, express a creature's thoughts about those states. We regard reportability as a sound test for a state's being conscious because a creature can non-inferentially report a state only if that creature is aware of the state by being in a non-inferential higher-order state that a report would express.

Non-inferential reportability and consciousness coincide in creatures, like ourselves, that can talk non-inferentially about their own mental states. So it is inviting to ask whether non-inferential reportability might constitute not merely a reliable test for mental states' being conscious, but also a way in which their being conscious has a distinctive function (see section 3). Reportability might then explain why a creature's being in mental states some of which are conscious could confer an adaptive advantage on that creature.

But it is doubtful that reportability does provide any significant function for mental states' being conscious, compared with those states' simply occurring but without being conscious. There is little if any added usefulness in reporting what state one is in, compared with simply conveying the representational content of that state. If one has a sensation of red or of pain, one could say simply that something is red or that there is damage to one's body in a particular place; one need not report the sensations themselves. And if one thinks that the moon is round, one can just say that it is, rather than reporting the thought itself. Little if any significant additional function is served by also reporting these states.

Theorists have long noted a tight connection between consciousness and speech. Thus Descartes contended that only creatures with language have thoughts (1964–75:VI 58–59, AT VII 204–205, IV 573–576, V 275–279), since any creature that did have conscious thoughts would, he held, express them in speech. But he gave no argument for this connection, and as already noted he fails in any case to countenance thoughts that are not conscious.

Distinguishing conscious from non-conscious thoughts lends itself to a more nuanced picture. Verbally expressed thoughts are always conscious, at least in the human case. This contrasts with thoughts we express non-verbally, which often fail to be conscious; our behaviour often reveals thoughts we are unaware of. This more subtle correlation also allows for a convincing explanation. Any time one says something, it is equally natural to say that one thinks that thing. So saying something, thereby expressing one's corresponding thought, actually disposes one to be aware that one has that thought (Rosenthal 2005:Ch. 10). On this explanation, the tie between language and consciousness is due not to the nature of those phenomena themselves, but to a special feature of human speech, that expressing a thought and reporting it are for us readily interchangeable in practice.

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**physicalism** Physicalism is the thesis that everything is physical, or at any rate, that everything is necessitated by or supervenes on the physical. The claim is not that there are no biological or psychological or social properties or things; it is rather that, if there are such properties or things, they are either physical or supervene on the physical. Physicalism is intended to be a contingent but very abstract thesis about the actual world. It is rather like the claim attributed to the ancient philosopher Thales, that everything is water. Thales did not (or so we may suppose) think that everything is water necessarily, in every possible world; he thought that everything is water in this world, as a matter of fact.

The Oxford Companion  
—TO—

# Consciousness

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