

References

- Block, N. 1995. On a confusion about a function of consciousness. *The Behavioral and Brain Sciences* 18: 227–47.
- Block, N. 2011. The higher order approach to consciousness is defunct. *Analysis* 71: 419–31.
- Byrne, A. 1997. Some like it HOT: consciousness and higher-order thoughts. *Philosophical Studies* 86: 103–29.
- Chalmers, D. 1996. *The Conscious Mind: In Search of a Fundamental Theory*. New York: Oxford University Press.
- Flohr, H. 2000. NMDA-receptor-mediated computational processes and phenomenal consciousness. In *Neural Correlates of Consciousness*, ed. T. Metzinger, 245–258. Cambridge, MA: MIT Press.
- Lau, H. and R. Passingham. 2006. Relative blindsight and the neural correlates of visual consciousness. *Proceedings of the National Academy of Science* 103: 18763–69.
- Levine, J. 2001. *Purple Haze: The Puzzle of Consciousness*. New York: Oxford University Press.
- Nagel, T. 1974. What is it like to be a bat? *The Philosophical Review* 83: 435–50.
- Rosenthal, D.M. 2004. Varieties of higher order theory. In *Higher-Order Theories of Consciousness*, ed. R. Gennaro, 19–44. Amsterdam and Philadelphia: John Benjamins Publishers.
- Rosenthal, D.M. 2005. *Consciousness and Mind*. Oxford: Clarendon Press.
- Rosenthal, D.M. 2010. How to think about mental qualities. *Philosophical Issues* 20: 368–93.
- Weisberg, J. 2010. Misrepresenting consciousness. *Philosophical Studies*. published online 12 May 2010 doi:10.1007/s11098-010-9567-3.

Response to Rosenthal and Weisberg

NED BLOCK

I described an incoherence in one form of the higher order thought (HOT) theory that derives from its holding both that an appropriate higher order thought is *sufficient* for a conscious state and that being the object of an appropriate higher order thought is *necessary* for a conscious state. A (1) lone and (2) unconscious (i.e. not the object of another HOT) and (3) “empty” (i.e. reference-failing) higher order thought at *t* determines a conscious state at *t*, but – contrary to the necessary condition – there is no thought at *t* about *that conscious state* – unless the lone thought is about itself. But such self-reference would collapse the HOT theory into the rival same-order

theory. As I noted in the article, this incoherence is resolvable by saying, as Weisberg and Rosenthal do, that when I have a lone unconscious empty higher order thought, what is conscious is the *non-existent* object of the HOT. Any theory can be made coherent by adopting sufficiently implausible views. Even contradiction can be made coherent by adopting Dialetheism and a paraconsistent logic.

What are the intentional objects that Rosenthal and Weisberg appeal to? Abstract objects? But a conscious state occurs in time: a conscious pain comes into existence and thankfully goes out of existence. If the conscious state in an empty HOT case is an abstract object, it will have to be one that comes and goes. But how can that be? Conscious agony and ecstasy occur, and they matter in a particular way when they occur. Unconscious perceptual states can occur but do not matter in that way. However, it is a mystery how something that does not exist can occur and matter in that way. As often noted (Crane 2003), a useful corrective for confusions about intentional objects is to rephrase using the notion of intentional content. Rosenthal's and Weisberg's views would be even less plausible if rephrased in terms of intentional content.

One of the recurring themes in both Rosenthal's and Weisberg's responses is that the HOT approach captures how things seem or seem subjectively to the subject. I counted 24 occurrences of the word 'seem' used in that sense in their responses. Rosenthal says that if one does not 'seem subjectively' to be in a mental state, then it is not conscious. Of course I do not deny *that!* *However, there is an obvious ambiguity in the word 'seem'.* When I say that the straight stick in the water seems bent I am reporting a subjective appearance. When I say that it seems that the gas tank is empty, I am reporting a thought or in any case something cognitive rather than anything phenomenal. The HOT theory of course licenses the latter sense, but Rosenthal's and Weisberg's use of the former exploits this ambiguity, giving the *illicit impression* that *thought is sufficient for seeming* in the subjective appearance sense.

Rosenthal tries to make the intentional object line plausible via two examples, dental fear and the supposed generic experience as of red. He says that in dental fear, patients have the subjective experience of pain, but without pain. True, tissue damage is not causing the pain, but that does not show there is no pain: there are different causal routes to pain. For example, people can have empathetic pain with no tissue damage, and this can be at least partially explained by the fact that both components of pain, the sensory and affective components, can be activated without tissue damage when the subject is watching others apparently subjected to nightmarish stimuli (Lamm et al. 2007).

There is an interesting issue of whether it is possible to experience generic redness without experiencing any specific shade of red. Rosenthal pronounces that one can and in many publications he brings this claim in as a

successful prediction of his theory. There are two problems here, one obvious. The obvious problem is: why suppose that there can be an experience of red but not of any shade of red? The less obvious problem is that the HOT theory makes the wrong prediction for *how to answer the question*. Consider the following hypothetical higher order thoughts:

- I am having an experience of scarlet.
- I am having an experience of red.
- I am having an experience of red and green all over at the same time.
- I am having an experience of colour.
- I am having a visual experience.

Which of these higher order thoughts correspond to possible experiences? This is obviously in large part a scientific issue, but what psychological and neural systems should the scientists look to in order to account for the differences in whether these HOTs genuinely correspond to conscious experiences? Supposing that there is no such thing as a generic experience as of colour, i.e. an experience as of colour but not any specific colour, the HOT theorist will have to say that the thought that I am having an experience of colour fails one of the condition in the HOT theory, the ‘inferential’ or ‘observational’ or ‘assertoric’ conditions. But if such answers are to be given anything other than an ad hoc basis, they will have to be grounded in a scientific investigation of HOTs themselves, rather than in their objects, the first order visual representations, which have been jettisoned by the HOT account as having any constitutive role in the experiences – in order to avoid the incoherence I described. However, contrary to the HOT view, it is obvious that the real scientific issue is to be resolved via examining the visual system itself. For example, what we know about the opponent process system in the visual cortex allows for the possibility of activating *both ends of the red/green channel at once*, creating an experience of red and green all over at the same time (Billock et al. 2001). No scientist would take seriously the idea that the issue is to be resolved by examining the *neural basis of thought* to see whether a particular thought is assertoric or whether it satisfies the ‘inferential’ condition.

Much of both responses concern *my* views about consciousness rather than *theirs*. The only view of mine that plays a substantive role in my argument was that consciousness matters and that something non-existent cannot matter in the same way as does something existent. Focusing on my views could be relevant if the only alternative to their peculiar views is my peculiar views. However, there is nothing in my critique that could not be accepted by representationists like Alex Byrne, Fred Dretske, Chris Hill, Bill Lycan or Michael Tye who hold views very different from mine.

Rosenthal says his account has no provision about the origin of a higher order thought in inference or observation. However, Rosenthal’s typical

statements of the inferential condition lend themselves to an interpretation as conjunctive: what is ruled out is a certain origin, e.g. inferential combined with an appropriate higher order thought about that origin. For example, at his 2005:183 he says: ‘One must be conscious of the state in a way that does not rely on conscious inference.’ That suggests it must not rely on something that is *both* conscious and an inference, a partially aetiological condition.

Rosenthal now tells us that actual inferential origin is irrelevant: what is required is ‘subjective independence’ of inference. But ‘subjective’ must itself be cashed out in terms of the theory and Rosenthal does not say how. Here is a suggestion: a pain is not conscious if my HOT about my pain is the object of a further HOT to the effect that it was the product of inference. However, this is not an improvement. If the neuropsychiatrist tells me about deep unconscious states that I have absolutely no appreciation of from the first person, do they become suddenly conscious if I *forget* that my HOT has an inferential source? If I forget the inferential source, but still think I want to murder my father and marry my mother on the authority of the neuropsychiatrist, then I have no higher order thought about the inference and so the new version dictates that the Freudian desires are conscious. Rosenthal *intends* that his condition will encode a kind of directness, but, sadly, intending does not make it so. The details of how this is supposed to be done are important since the danger is always smuggling in some kind of phenomenology with a vague appeal to, e.g. directness.

Both Rosenthal and Weisberg misdescribe me as assuming a ‘monadic’ theory of what-it-is-like-ness. This misdescription is explicitly denied in the fourth paragraph of my paper in this issue of *Analysis* where I am attempting to correct a similar error in Weisberg’s earlier paper. I note that no scientific realist about consciousness can claim that consciousness is monadic given that what we already know about what consciousness is in the brain points strongly to a highly relational state. Weisberg misdescribes me as ‘embracing’ the ‘zealous’ view of consciousness as a monadic theory, by which he means that consciousness is something a state has independently of other states. I have never advocated any such *atomistic* view. For example, I believe in the importance of co-consciousness in the identity of conscious states. On this atomistic view, simultaneous auditory and visual conscious representations of someone speaking would be independent of one another. Weisberg ascribes to me the view that ‘pains matter even if the subject is in no way aware of them’. I strongly deny this view 2007a:484–85, noting that ‘to say that one is necessarily aware of one’s phenomenally conscious states should not be taken to imply that every phenomenally conscious state is one that the subject notices or attends to or perceives or thinks about’. I deny the Rosenthal–Weisberg theory of awareness, not awareness itself. Weisberg notes that I have criticized functionalism. True, but as I have moved in the direction of a physicalist theory of consciousness, I have limited

my anti-functionalism to ‘armchair’ versions of functionalism. In a later condensed version of the paper that Weisberg quotes I say: ‘At least, no such reduction of P-consciousness to the cognitive, intentional, or functional can be known in the armchair manner of recent deflationist approaches’ (from 2007b: 266; Chalmers 2002).

Rosenthal says I insist on a single theory of different things: what he calls sensory quality and consciousness of sensory quality. On my view, there are representations in the visual system that can occur consciously and on other occasions unconsciously. I favour a neurally based account of what makes representations conscious (Block 2005, 2009) when they are conscious. The evidential source for this latter account is the neural basis of anaesthesia. So I make a firm distinction between representational content of a visual representation and what makes this content conscious. So on my account as on Rosenthal’s there can be unconscious sensory representations. And on my account as on Rosenthal’s, something can be said about what makes a sensory content conscious.

The underlying problem in the HOT account is that content is doubled: the higher order state can represent the first order object as an experience of red even though its first order object represents green. Rosenthal and Weisberg have responded by jettisoning the first order content as constitutive of consciousness. However, given the problems I have pointed out, those who like the higher order picture should consider the opposite move advocated by Hakwan Lau (2008, 2010) in which a higher order probabilistic ‘pointer’ that has no content of its own refers to a first order representation. The consciousness of seeing a red square could be glossed in language as: probably red square at 3:00.¹

*Department of Philosophy and Psychology
and Center for Natural Science
New York University
5 Washington Place, New York
New York 10003, USA
ned.block@nyu.edu*

References

- Billock, V.A., G.A. Gleason, and B.H. Tsoou. 2001. Perception of forbidden colours in retinally stabilized equiluminant images: an indication of softwired cortical colour opponency? *Journal of the Optical Society of America A* 18: 2398–403.
- Block, N. 2005. Two neural correlates of consciousness. *Trends in Cognitive Sciences* 9: 46–52.

1 I am grateful to Jeremy Dolan, Mikkel Gerken, Joe Harper, Nathana O’Brien and Jared Warren for comments on an earlier version.

- Block, N. 2007a. Consciousness, accessibility, and the mesh between psychology and neuroscience. *Behavioral and Brain Sciences* 30: 481–548.
- Block, N. 2007b. *Functionalism, Consciousness and Representation*. Cambridge, MA: MIT Press.
- Block, N. 2009. Comparing the major theories of consciousness. In *The Cognitive Neurosciences*, ed. M.S. Gazzaniga, 1111–22. vol. 4. Cambridge: MIT Press.
- Chalmers, D. 2002. *Philosophy of Mind: Classical and Contemporary Readings*. New York: Oxford University Press.
- Crane, T. 2003. The intentional structure of consciousness. In *Consciousness: New Philosophical Perspectives*, eds A. Jokic and Q. Smith, 33–56. Oxford and New York: Oxford University Press.
- Lamm, C., D. Batson, and J. Decety. 2007. The neural substrate of human empathy. *The Journal of Cognitive Neuroscience* 191: 42–58.
- Lau, H. 2008. A higher order Bayesian decision theory of consciousness. *Progress in Brain Research* 168: 35–48.
- Lau, H. 2010. Theoretical motivations for investigating the neural correlates of consciousness. *Wiley Interdisciplinary Reviews: Cognitive Science* 21: 1–7.
- Rosenthal, D. 2005. Sensory qualities, consciousness and perception. In *Consciousness and Mind*. 175–226. Oxford: Oxford University Press.

Is ‘no’ a force-indicator? No!

MARK TEXTOR

1. Rejectivism and ‘no’

The rejective view of negation, *Rejectivism* for short, holds that the meaning of the sentence-operator ‘It is not the case that’ is to be explained on the basis of a prior understanding of the activity of rejecting.¹ The speech-act of rejection or denial (dissent) is taken to be the opposite of assertion; rejecting that *p* is distinct from and more basic than asserting *that it is not the case that p*. For example, a Rejectivist account of the meaning of ‘It is not the case that’ would be given along the following lines:

‘It is not the case that A’ is correctly assertible iff ‘A’ is correctly deniable.

‘It is not the case that A’ is correctly deniable iff ‘A’ is correctly assertible.

The so-called *bilateral conception of meaning* generalizes this idea and argues that the meaning of the logical constants is given by rules for denial as well as

1 Bendall 1978: 274; Bendall 1979: 68; Humberstone 2000: 331; Price 1983: 171; Rumfitt 1997: 226; Smiley 1996: 1, 4.