Replies to Galen Strawson and Ned Block

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Reply to Galen

- Galen and I agree that a state’s being conscious involves the occurrence of some *higher-order intentional content*.
- We differ about whether that higher-order content occurs *separately* from the first-order content, and in a state distinct from the state with first-order content.
- In short, *is one’s awareness of one’s conscious states intrinsic to those states?*
- We also differ about quality inversion, about which I’ll say just a bit.

- I'll start with a few preliminary points, which will figure also in replying to Ned.
- Galen quotes a version of my "Transitivity Principle" (TP):

  A state is conscious if one is conscious of that state in some suitable way.
- As he notes, this is because *no state is conscious if one is wholly unaware of it*.
- This is a reasonable *first pass* at TP—but a far better version is:

  A state is conscious if, and only if, *one is conscious of oneself as being in that state (in some suitable way)*.

- I argue that TP is *implemented* by higher-order thoughts (HOTs):

  We are conscious of our conscious states by having *(seemingly noninferential)* HOTs about those states.
- HOTs have the content that one is in a particular state (thought, sensation, etc.).
- And having a thought about something (as being present) makes one conscious *of* that thing. *(For various reasons, higher-order sensing* wouldn't work.)
- So a HOT makes one conscious *of oneself as being in the state in question*, and positing HOTs *explains* consciousness.

- One argument for this is that we take *noninferential reportability* to be a reliable mark of a state's being conscious:
  The inability to report noninferentially a state that we have independent reason to think somebody is in (given a general ability to report such states) is compelling evidence that the state is not conscious.
- And *reports express corresponding HOTs*.
- We can use this to fix what it is in virtue of which a state is conscious *in these cases*,
  and apply that to *borderline cases* and to *cases of individuals that can't report*.

Replies to Strawson and Block December 13, 2006 5

- Galen doubts that a HOT that lacks qualitative consciousness can lead to its target's being qualitatively conscious.
- But coming to have more refined concepts (e.g., for tastes of wines) can make one conscious of one's mental qualities in correspondingly more fine-grained ways.
- The new concepts presumably figure in HOTs about those qualitative states.
- Since we have this evidence that *purely intentional states can affect what it's like for one to be in various qualitative states*, HOTs may well give rise to there being something it's like for one to begin with.

Replies to Strawson and Block December 13, 2006 6

- Galen urges that *undetectable quality inversion or shift* is not only conceivable, but possible—indeed that shifts are likely.
- And my theory of mental qualities (which is distinct from HOT theory) has the consequence that this isn't so.
- The quality spaces that define the mental qualities of each human sensory modality are *asymmetrical*.
- So inversion would distort the relevant quality space, and would be detectable.
- Auditory harmonics (and resulting timbre) would probably make the shift in pitch Galen imagines likewise detectable.

- On my theory of mental quality, the asymmetry among mental qualities is no accident.
- On that theory, *mental qualities are fixed in part by their location in a quality space that's homomorphic to the quality space of perceptible properties accessible by the relevant modality*.
  - (Not "isomorphic," since each quality space of perceptible properties is *more fine-grained* than the corresponding space of mental qualities.)
- So, if the quality spaces were symmetrical around some axis, *then one couldn't distinguish perceptible properties on one side of that axis from those on the other*.

- All that aside, Galen's view requires that our first-person access to mental qualities (the way we're conscious of them) *trumps any third-person access*—perhaps because he holds mental qualities cannot occur without being conscious.
- We do initially understand mental qualities by way of the standard, conscious cases.
- But *it doesn't follow that such qualities can't occur without being conscious*.
- Since they arguably occur in *subliminal perception* (we have no non-question-begging reason to think not), we must have some *third-person access* to them.

Replies to Strawson and Block December 13, 2006 9

- A quick word about diaphanousness.
- According to Galen, "[o]ur consciousness of the tree doesn't really exist without our consciousness of [that consciousness]."
- But we can be aware—i.e., conscious—of a tree *subliminally*.
- And then the state in virtue of which one is subliminally aware of the tree *is not a conscious state*.
- Aristotle is doubtless right that, whenever one *is* aware of one's awareness of a tree, one is aware of it *en passant*. But we aren't always aware of it at all.

Replies to Strawson and Block December 13, 2006 10

- Galen follows Victor Caston is holding that *considerations of content* determine whether awareness of one's conscious states is by way of some distinct state.
- Suppose I consciously think that it's raining.
- Since my thought is conscious, Galen agrees that I have some higher-order content that I think it's raining; it is that content in virtue of which I'm conscious of myself as thinking it's raining.
- As Galen argues, *nothing about content* prevents that higher-order content from belonging to the first-order state.

- But considerations about *mental attitude* (the attitudes we hold toward contents) do show that that can't be the right story.
- *No single intentional-state token can have two distinct mental attitudes:*
  No single intentional-state token is
  both an *affirming* and a *wondering*, or
  both a *wondering* and a *doubting*, or
  both an *affirming* and a *hoping*, etc.
- This constraint causes no trouble for intrinsic higher-order content in the particular cases Galen considers, nor in the foregoing case of consciously thinking that it's raining.

- But suppose that—unlike consciously thinking that it's raining—the state I'm conscious of myself as being in is *not assertoric*.
- Suppose, e.g., that I'm conscious of myself as *wondering whether it's raining* or as *doubting or hoping that it's raining*.
- The higher-order content then would be that I wonder whether (or doubt or hope that) it's raining.
- Could that higher-order content itself *occur in connection with the mental attitude of wondering or doubting*—as the first-order content does in those cases?

Replies to Strawson and Block December 13, 2006 13

- No. The higher-order content must occur with an *assertoric* mental attitude.
- Wondering whether I'm in some state or doubting or hoping that I am *does not result in my being conscious of myself as being in that state*.
- And, since no single intentional state can have two distinct mental attitudes, *the first-order state of wondering or doubting must be distinct from the higher-order assertoric state*.
- Similarly, since *purely qualitative states* involve no mental attitude, they are also distinct from assertoric HOTs about them.

Replies to Strawson and Block December 13, 2006 14

Reply to Ned

- Ned distinguishes what he calls *phenomenal consciousness* from what he calls *reflexive consciousness*.
- Reflexive consciousness involves HOTs; phenomenal consciousness does not; it involves only Nagel's *"what it's like."*
- But as is often noted, the phrase 'what it's like' is itself not all that clear.
- And there is an *ambiguity* that's important for present purposes.

- 'What it's like' might mean *conscious* qualitative character—as Nagel likes to put it, what it's like *for one* ("Bat," p. 436):

> But fundamentally an organism has conscious mental states if and only if there is something that it is like to *be* that organism—something it is like *for* the organism.

- Or it might just mean qualitative character *independent of its being conscious*—and so perhaps *not* conscious.
- One might reject this second meaning and insist that qualitative character simply cannot occur without being conscious–perhaps because one denies that we have access to mental qualities *apart from the way we're conscious of them*.

- But since perceiving is sometimes subliminal, *the mental qualities involved in perceiving sometimes fail to be conscious*.
- HOTs explain the difference between mental qualities that are *conscious in that way* and mental qualities that aren't: HOTs occur only in the conscious cases.
- The purpose of my "homomorphism theory" of mental qualities is to account for mental qualities *independently of consciousness*, and so to show *how we have access even to mental qualities that aren't conscious*.

Replies to Strawson and Block December 13, 2006 17

- *Same-order views* and Sosa's and Dretske's *deflationary views* both have difficulty accommodating this distinction between intuitively conscious and nonconscious states.
- If higher-order content is intrinsic to conscious states *(same order)*, or if experiencing an experience is simply having the experience *(deflationary)*, how and why would any state ever occur without being conscious?
- And since subliminal qualitative states do occur, it's *these views* that have "empirical trouble with extensional adequacy."

Replies to Strawson and Block December 13, 2006 18

- Dretske argues that if thoughts about other mental states make those states conscious, a thought about a stone should also make it conscious.
- And Ned argues that it's ad hoc to say this works only with mental states—but that this restriction is no longer ad hoc on a *same-order theory*, which holds that the higher-order content is always about the state it belongs to.
- But there are other, better considerations that motivate the restriction.
- And the stone objection involves in any case an *equivocation*.

- In the way in which some *mental states* are conscious, there's nothing it *could* be for a *stone* to be conscious.
- Stones might at best be conscious only in the way *people* are—in being awake and responsive to sensory input. (Consider an animated cartoon stone.)
- TP says nothing about such "creature consciousness"—only that for a *mental state* to be conscious is for one to be conscious of oneself as being in that state.
- So the exclusion of stones rests on TP, which is not itself ad hoc.

- 'What it's like' can mean *conscious mental qualities*, but it can also mean *mental qualities independent of being conscious*.
- So I agree with Ned that "[p]ain is a state there is always something it is like to be in"—
  if he means that pain always has qualitative character—
  but *not* if he means that pain is always, in an intuitive way, a conscious state.
- Babies' behavior, physiology, and cortical activation all indicate they have pains.
- But Ned's authorities *don't distinguish conscious from nonconscious pains*.

- And HOTs are needed *only for conscious pains*.
- Neonates do have *some* frontal-lobe function (Csibra et al 2001, Diamond and Doar 1989, Bell 1998) — and so might have some HOTs.
- But there's also *no non-question-begging evidence that infants' pains are conscious*.
- And theories should settle unclear cases.
- Even pains that are not conscious will typically be *connected to behavior and other mental states in characteristic ways*.
- So pain will be *bad and undesirable* even when it isn't conscious—because of its effect on mental functioning and behavior.

- Ned suggests that children's *difficulty in understanding representation and the notion of representing* is more evidence for consciousness without HOTs.
- But a HOT about a perception, e.g., need not describe that state *in terms of some notion of representation*.
- It might describe a perception of a bear, say, simply as the state one is in when there's a bear in front of one.
- Also, since children have more trouble with some kinds of representation than with others, the difficulties Ned appeals to may well not apply to HOTs.

- There is evidence that "young children generally understand appearance-reality discrepancies,"
  but have difficulty with "the unfamiliar discourse format of the standard test"
  (Deák, Trends in Cognitive Sciences, December 2006).
- This might well apply to Gopnik's "Did you know by seeing it or by feeling?"
- Ned urges that Freudian *coded dreamwork* constitutes relevant higher-order states.
- But the need to decode prevents dream-work from making one *noninferentially* conscious of the unconscious desire.
- Not any kind of higher-order state will do.

- Finally, I agree with Ned that attention can play a role in what it's like for one to, e.g., see a specific color:
  If I don't attend to my experience of seeing a yellow banana, *what it's like for me may be just a generic yellow:*
- And attending—to the physical object or to the perception—can result in the "what it's like" *changing* to the more fine-grained shade of *banana yellow:*
- But attention can occur without conscious qualitative character (Kentridge, Heywood, and Weiskrantz 2004); so we must still explain *the effect of attending on what it's like for me.*

- Also, there are striking top-down influences on *what it's like for one to see a color:*

  One's knowledge of the colors of particular kinds of familiar object (e.g., bananas and other fruits) actually makes a testable difference to what it's like for one to see their colors (Hansen et al 2006).
- And if those top-down factors can affect what it's like for one, it's reasonable to expect that top-down influences from HOTs can as well.

Summary

- Since mental states (including qualitative states) can occur *without being conscious*, TP and HOTs are the best explanation of the difference between the conscious and nonconscious cases.
- Theories that appeal to *intrinsic higher-order content* face theoretical and empirical difficulties not encountered by theories that rely on distinct higher-order states.

THE END

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- "Although even newborns are capable of making reactive saccades to conspicuous visual targets, there is evidence for substantial developments in the ability to plan and execute saccades over the first year of life."
- Diamond, Adele, and Bertha Doar, "The Performance of Human Infants on a Measure of *Frontal Cortex* Function: The Delayed Response Task," Developmental Psychobiology, 22, 3 (April 1989): pp. 271-294.
- "12 infants were tested longitudinally every 2 wks from 6 to 12 mo of age on the delayed response (DR) task."

- Bell, Martha Ann, "Frontal Lobe Function During Infancy: Implications for the Development of Cognition and Attention," in Cognitive Neuroscience of Attention: A Developmental Perspective, ed. John Edward Richards, Mahwah, NJ, US: Lawrence Erlbaum Associates Publishers, 1998, pp. 287-316.
- "This chapter examines the recent evidence implicating the frontal cortex in a variety of infant behaviors. The first section is a brief overview of evidence for development of the frontal cortex during the first 12 mo of life."
- Johnson, Mark H., "Development of Human Brain Functions," Biological Psychiatry, 54 (2003): 1312-1316.
- Deák, Gedeon O., "Do Children Really Confuse Appearance and Reality?", Trends in Cognitive Sciences, 10, 12 (December 2006): 546-550.

- Kentridge, Robert W., C. A. Heywood, and Lawrence Weiskrantz, "Spatial Attention Speeds Discrimination without Awareness in Blindsight," Neuropsychologia 42 (2004): 831-835.
- "An intimate relationship is often assumed between visual attention and visual awareness. Using a subject, patientGY, with the neurological condition of 'blindsight' we show that although attention may be a necessary precursor to visual awareness it is not a sufficient one. Using a Posner endogenous spatial cueing paradigm we showed that the time our subject needed to discriminate the orientation of a stimulus was reduced if he was cued to the location of the stimulus. This reaction-time advantage was obtained without any decrease in discrimination accuracy and cannot therefore be attributed to speed-error trade-off or differences in bias between cued and uncued locations. As a result of his condition GY was not aware of the stimuli to which processing was attentionally facilitated. Attention cannot, therefore be a sufficient condition for awareness."

- Hansen, Thorsten, Maria Olkkonen, Sebastian Walter, and Karl R. Gegenfurtner, "Memory Modulates Color Appearance," Nature Neuroscience 9, 11 (November 2006): 1367-8.
- "Our subjects had to adjust the color of the fruit objects until they appeared gray. In a different set of experiments, we asked the same subjects to adjust the color of the fruit objects until they appeared natural. It was evident that the settings for the banana … deviated from the neutral gray adaptation point at the origin of the color space, in the direction opposite to the typical setting … . In actual fact, subjects adjusted the banana to a slightly bluish hue—its opponent color—in order for it to appear neutral gray. At the point where the banana was actually achromatic, at the origin of the color space, it still appeared yellowish. A similar effect was obtained for the other fruit objects we investigated … . As a control, we asked our subjects to adjust uniform spots of light and random noise patches … , which do not have an association with a typical color. The settings for these stimuli … did not differ significantly from the neutral gray background … , but the difference between the controls and the fruit setting was significant … ."