

# Perceptual Certainty and Higher-Order Awareness: Comments on Hakwan Lau

**David Rosenthal**



CUNY Graduate Center  
Philosophy and Cognitive  
Science

<http://davidrosenthal1.googlepages.com/>

NYU/CNRS Workshop: Perception  
Action, and the Self, 10/31/09



## I. Introductory

- There is much I agree with in Hakwan's talk—and much I welcome in support of a higher-order theory of consciousness, and as evidence against any first-order theory.
- Thus: Applying TMS to PFC lowers perceptual certainty but not visual performance, and fMRI in performance-matched conditions shows variation in awareness to correspond with variation in PFC—all along with the robust character of the cognitive unconscious.

- These findings all support a higher-order theory—on which a state is conscious if, but only if, one has a distinct higher-order awareness (HOA) of that state.
- Visual performance and perceptual certainty are *independent*: Visual performance reflects a subject's first-order visual states, whereas perceptual certainty is arguably a measure of an individual's HOA of those first-order visual states.
- In addition, the reportability of conscious states is reason to posit higher-order thoughts (HOTs) to explain that HOA.

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- Verbal reports express thoughts about the items reported; so reports of mental states express thoughts about those states.
- As Hakwan notes, the conceptual content of HOTs can be cognitively undemanding. And since HOTs are seldom conscious, we'll be aware of them only rarely: We should see them as theoretical posits. Still, for today's purposes, any form of higher-order awareness (HOA) will do.
- Hakwan argues for his hierarchical model and against a dual-channel model, and suggests that Ned may in effect be operating with a dual-channel model.

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- The contrast between hierarchical and dual-channel models matches pretty closely the contrast between higher- and first-order theories of consciousness.
- On a higher-order theory, mental states are not in themselves conscious; their being conscious depends on something distinct. That's the hierarchical model.
- On a first-order theory, by contrast, some mental states are conscious in themselves, independent of any added occurrence.  
Ned's phenomenal consciousness is a first-order notion: Phenomenal consciousness is intrinsic to any state that has it at all.

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## II. A Possible Problem

- First-order theories are the main challenge to any higher-order theory.  
So I want to complement Hakwan's discussion a bit by saying something about Ned's notion of phenomenality.
- Having argued for the independence of perceptual certainty (HOA) from visual performance (first-order visual states), Hakwan raises a challenge to higher-order theories: Though we don't consciously see the gorilla,  still it's tempting think that there is gorilla phenomenality—which outstrips access.

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TDR  
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- And as Hakwan also observes, we hear more notes in a symphony than we can report. So phenomenality again seems to overflow reportability—and hence access.
- Ned appeals (BBS 2007) to work in the spirit of Sperling (1960): We can't report the identity of all the Sperling alphanumeric characters, but still *we do see them all*—so we have phenomenality for them all.
- As Hakwan notes, visibility has greater bandwidth than attention. So we might try equating phenomenality with visibility and access with attention to explain why phenomenality overflows access.

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- By contrast, Hakwan thinks a higher-order theory may face trouble with the gorilla and symphony (and presumably Sperling).
- Conscious phenomenology, on a higher-order theory, goes with some HOA, since blindsight and subliminal perception both occur when there's no HOA. But first-order bandwidth doubtless exceeds higher-order bandwidth. How then can a higher-order theory explain phenomenality's overflowing of access?
- If phenomenality is the intuitively conscious phenomenology we can report, *how could phenomenality seem to overflow access?*

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- The apparent problem *for a higher-order theory*:  
**Phenomenality**  $\neq$  **(FO) Visibility**  
since phenomenality occurs in blindsight and subliminal vision.
- So **Phenomenality** = **HOA**
- But **(FO) Visibility** outstrips **HOA**
- So how could phenomenality seem to overflow access?

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- Hakwan suggests that there may be “fake” phenomenology—perceptual certainty unwarranted by any first-order states.
- But that doesn’t square with the examples:  
When we hear a symphony, there are robust first-order states for many notes beyond those we can report;  
Sperling subjects presumably have first-order states for all the letters;  
and there’s a first-order state for the gorilla.
- We have no phenomenology in these cases of seeing and hearing more than we actually do; rather, we infer that we see and hear more than we’re aware of doing.

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### III. What Is Phenomenality?

- These considerations warrant a closer look at just what phenomenality consists in—i.e., the phenomenality that seems in these cases to overflow access— as well as what that apparent overflow itself consists in.
- Phenomenality seems to overflow access; i.e., it seems to be there even when we can't report it. So it's natural to see phenomenality, with Hakwan, as the conscious phenomenology that we're aware of in a higher-order way.

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- But if so, why can't we report it? Ned's answer is that it overflows the reporting system: Its content is more than the reporting system can handle.
- But Sperling subjects don't see themselves as merely unable to report the identities of most of the alphanumeric characters; they see themselves as also not being conscious of the identities they can't report. Nor is there independent reason to think that reportability is impaired here.
- Similarly, we're not consciously aware of the gorilla, or of all the notes we hear in a symphony; it's not simply reportability.

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- So it's better, after all, to identify the phenomenality that seems to outstrip access as properties of first-order states—states that are simply not conscious unless accompanied a suitable HOA.
- But how can that be?  
Sperling subjects are consciously aware of all the letters and numerals; they just can't report the identities of most of them.
- We can be aware of something in one respect but not in another—e.g., aware of something as an alphanumeric character but not as an 'A'. That's what happens in the Sperling case and in the symphony.

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- First-order perceptual states occur that we're aware of in respect of some, but not all of their qualitative properties.
- One is aware of one's perception of an 'A' as a perception of some alphanumeric character or other, but not as a perception of an 'A'—  
and aware of many perceptions of notes as a single perception of many notes, not as many perceptions of individual notes.
- The gorilla case is a bit different:  
Since one's gorilla perception isn't conscious at all, phenomenality may not in this case even seem to overflow access.

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- In all these cases, it's arguably best to think of the phenomenality that seems to overflow access as first-order states that fail in some respect to be conscious.
- The first-order state either fails altogether to be conscious—as with the gorilla—or fails to be conscious in respect of some particular mental properties—as with Sperling and the symphony.
- Higher-order theories capture this perfectly: First-order information plainly outstrips higher-order awareness, and just that's what happens in the cases Hakwan raises as a possible challenge.

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- The gorilla perception isn't conscious at all because there's no HOA that targets that state; we remain unaware of the state.
- In the Sperling and symphony cases, the first-order states are conscious in respect of some, but not all, of their qualitative properties:  
There's a HOA of the state, but it describes that state in respect only of some, and not all, of its qualitative mental properties.
- A higher-order theory preserves the match between a state's being conscious and its being reportable, and also explains the apparent—i.e., inferred—overflow.

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## Summary

- As Hakwan convincingly argues, a higher-order theory best fits the available neuropsychological data from TMS and fMRI in matched-performance conditions, as well as robust nonconscious processing.
- The *apparent overflow* by phenomenality of access is also best explained by a higher-order theory, on which the first-order phenomenality that we infer is there is not conscious—or at least not conscious in respect of all its mental properties.

**Thank you for  
your attention**