

24.500/Phil253 topics in philosophy of mind/perceptual experience



Figure by MIT OCW.



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plan

- tea @ 2.30
- Block on consciousness, accessibility,...

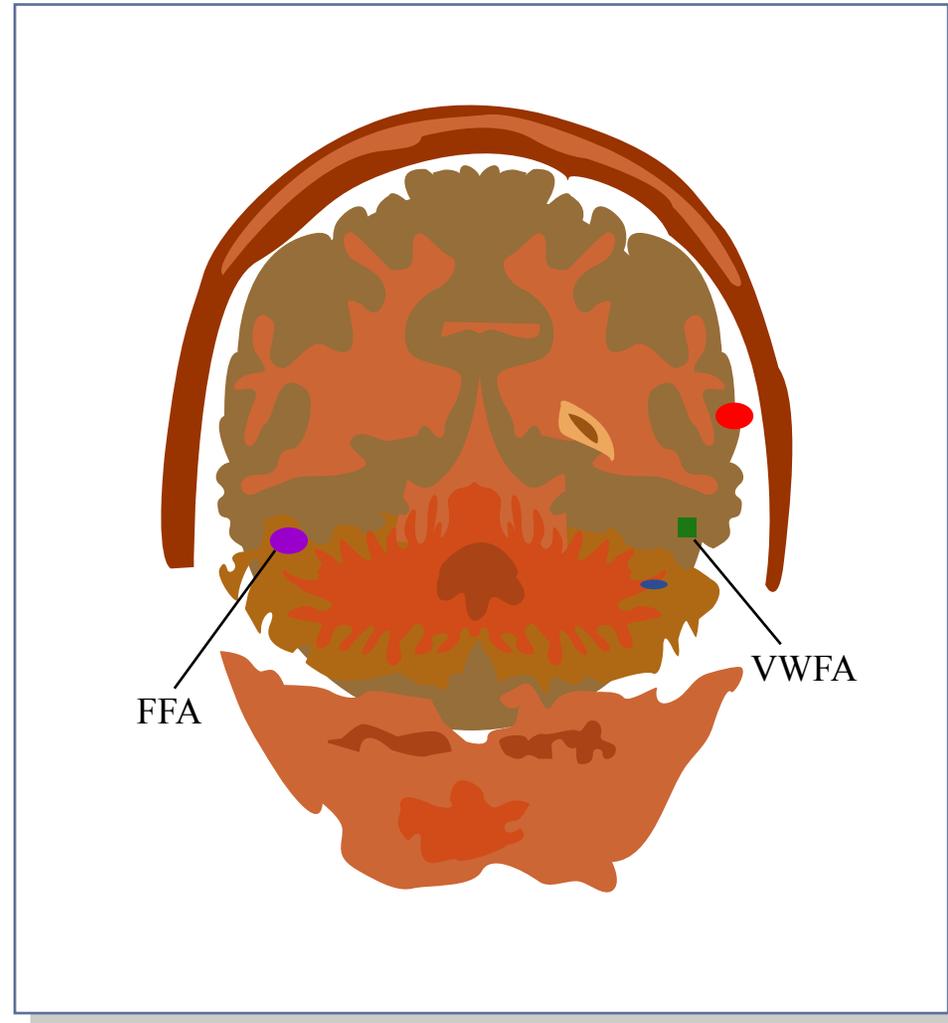


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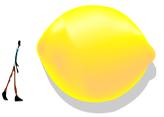


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phenomenal consciousness

Let me acknowledge at the outset that I cannot define P-consciousness [i.e. phenomenal consciousness] in any remotely non-circular way. I don't consider this an embarrassment. The history of reductive definitions in philosophy should lead one not to expect a reductive definition of anything. But the best one can do for P-consciousness is in some respects worse than for many other things because really all one can do is point to the phenomenon...Nonetheless, it is important to point properly. (Block, "Concepts of Consciousness", 206)

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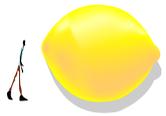


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P-consciousness is experience. P-conscious properties are experiential properties. P-conscious states are experiential states, that is, a state is P-conscious if it has experiential properties. The totality of the experiential properties of a state are “what it is like” to have it. Moving from synonyms to examples, we have P-conscious states when we see, hear, smell, taste and have pains.



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- belief is (apparently) not a P-conscious state

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total vs. core neural basis

- The total neural basis of a state with phenomenal character C is—all by itself—sufficient for the instantiation of C.
- The core neural basis of a state with phenomenal character C is the part of the total neural basis that distinguishes states with C from states with other phenomenal characters or phenomenal contents, e.g. the experience as of a face from the experience as of a house. (CAM, 4)

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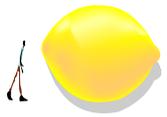


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one way of spelling this out

- $TOTAL_c = T\text{-}\&CORE_c$ (T- = ‘total minus core neural basis’)
- $TOTAL_c$ entails C
- $TOTAL_c$ entails $CORE_c$
- $CORE_c$ does not entail C
 - similarly, $TOTAL_q$ entails Q, $TOTAL_q$ entails $CORE_q$, $CORE_q$ does not entail Q

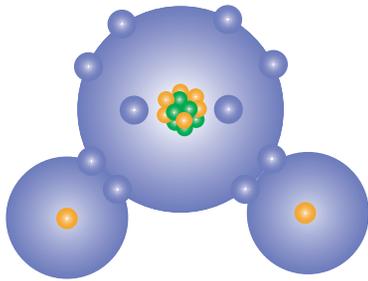


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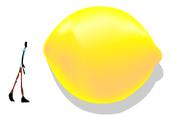


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causal vs. constitutive

- cerebral blood flow is causally necessary for consciousness, but activation of the upper brainstem is much more plausibly a constitutive condition, part of what it is to be conscious.
- (What does ‘constitutive’ mean? Hydrogen is partially constitutive of water since water is composed of hydrogen and oxygen.)
- The issue of this paper is whether the cognitive access underlying reportability [\approx ‘access consciousness’] is a constitutive condition of phenomenal consciousness. (3-4)



Figure by MIT OCW.

the Methodological Puzzle

- S: a ‘cognitively inaccessible’ (hence unreportable) state
- is S phenomenally conscious (does it have ‘phenomenology’)?
- yes: it shares a core neural basis B with clear cases of P-consciousness
- but that assumes that ‘the cognitive accessibility mechanisms underlying reportability are [not] a constitutive part of the core neural basis’

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Figure by MIT OCW.

It may be that whatever it is that makes the state unreportable also makes it unconscious. Perhaps the cognitive accessibility mechanisms underlying reportability are a constitutive part of the core neural basis, so that without them, there cannot be a phenomenally conscious state. It does not seem that we could find any evidence that would decide one way or the other because any evidence would inevitably derive from reportability of a phenomenally conscious state, and so it could not tell us about the phenomenal consciousness of a state which cannot be reported. So there seems a fundamental epistemic...limitation in our ability to get a complete empirical theory of phenomenal consciousness. This is the Methodological Puzzle. (5)

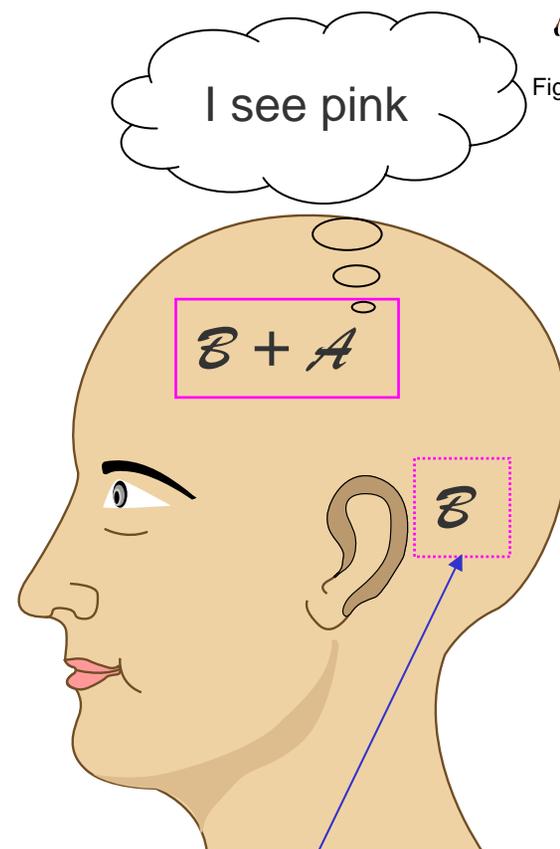


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unreportable S: 'pink'
phenomenology?

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Figure by MIT OCW.

e

- The problem does not arise in the study of, e.g. water...We have no problem in extrapolating from the observed to the unobserved and even unobservable in the case of water because we are antecedently certain that our cognitive access to water molecules is not part of the constitutive scientific nature of water itself.
- few would be sure whether phenomenal consciousness is or is not partly constituted by cognitive access to it. It is this asymmetry that is at the root of the Methodological Puzzle of phenomenal consciousness. (5)

Water molecule

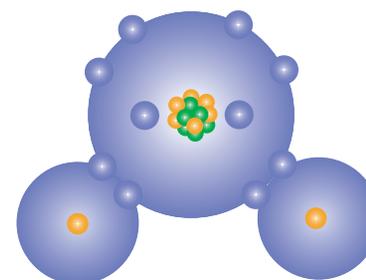


Figure by MIT OCW.



Figure by MIT OCW.

When one has a phenomenally conscious experience, one is in some way aware of having it. Let us call the fact stated by this platitude—without committing ourselves on what exactly that fact is—the fact that phenomenal consciousness requires Awareness. (8)

- Awareness is trivial (Sosa)
- higher-order views
- same-order views
 - A conscious experience is reflexive in that it consists in part in an awareness of itself.



Figure by MIT OCW.

- OK, but what about first-order views?

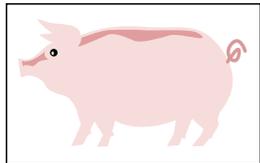


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- in one form or another: Tye, Chalmers, Campbell, Martin,...
- to ‘phenomenally experience pink’ is to be aware of pink
- awareness of the experience, or awareness that one is aware of pink, is not needed

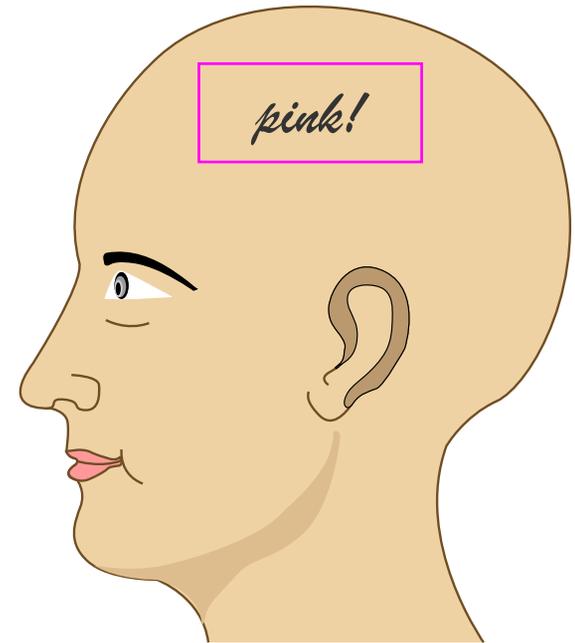


Figure by MIT OCW.



Figure by MIT OCW.

- the state is reportable/thinkable
 - I see pink
- the object or content of the state is reportable/thinkable
 - that's pink
- at least in some animals, presumably we have the second without the first

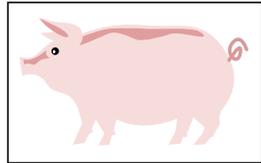


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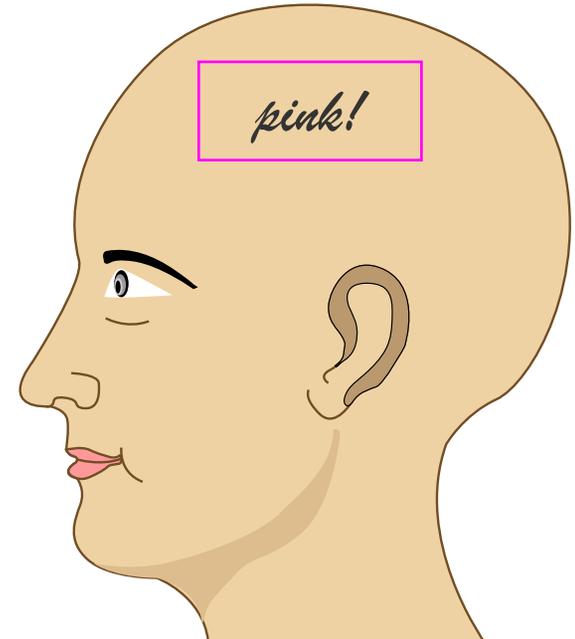
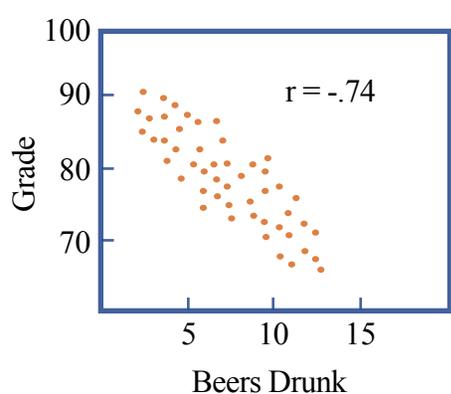


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correlationism

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- The Metaphysical Correlationist thinks that the cognitive access relations that underlie the subject's ability to report are a part of what constitutes phenomenology, so there could not be phenomenology without cognitive accessibility.
- According to Epistemic Correlationism, cognitive accessibility is intrinsic to our knowledge of phenomenology but not necessarily to the phenomenal facts themselves. Epistemic Correlationism is more squarely the target of this paper... (9-10)



Figure by MIT OCW.

The alternative I have in mind is just the familiar default ‘method’ of inference to the best explanation, that is the approach of looking for the framework that makes the most sense of all the data, not just reports ... The reader may feel that I have already canvassed inference to the best explanation and that it did not help.



phenomenology overflows accessibility

the iconic buffer

- after a brief presentation, subjects can recall only about 4 items
- but with a tone to indicate a row (the selection criterion) after the presentation, subjects can recall all the letters/numerals (the reported attribute) in the row
- information about all the letters/numerals is stored in “iconic memory”/”the iconic buffer”

B	4	E
Z	C	8
W	U	A



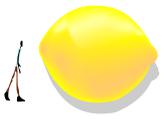


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- <http://www.nyu.edu/gsas/dept/philo/faculty/block/demos/Sperling320msec.mov>

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Figure by MIT OCW.

An attractive picture of what is going on here—and one that I think makes the most sense of the data—is that although one can distinctly see all or almost all of the 9-12 objects in an array, the processes that allow one to conceptualize and identify the specific shapes are limited by the capacity of ‘working memory’, allowing reports of only about 4 of them. That is, the subject has experiences as of specific alphanumeric shapes, but cannot bring very many of them under specific shape or alphanumeric concepts (i.e. representations) of the sort required to report or make comparisons.



Figure by MIT OCW.

common ground:

- the subject sees the ‘B’, ‘4’, etc., as shapes of some sort
- the information is that the ‘B’ is a ‘B’ is in the subject’s cognitive system
 - which is not to say that the buffer represents the ‘B’ as such

disputed:

- the subject sees the ‘B’ as a specific alphanumeric shape (experiences the ‘B’ as ..., is phenomenally conscious of the ‘B’ as...)

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Landman et al.



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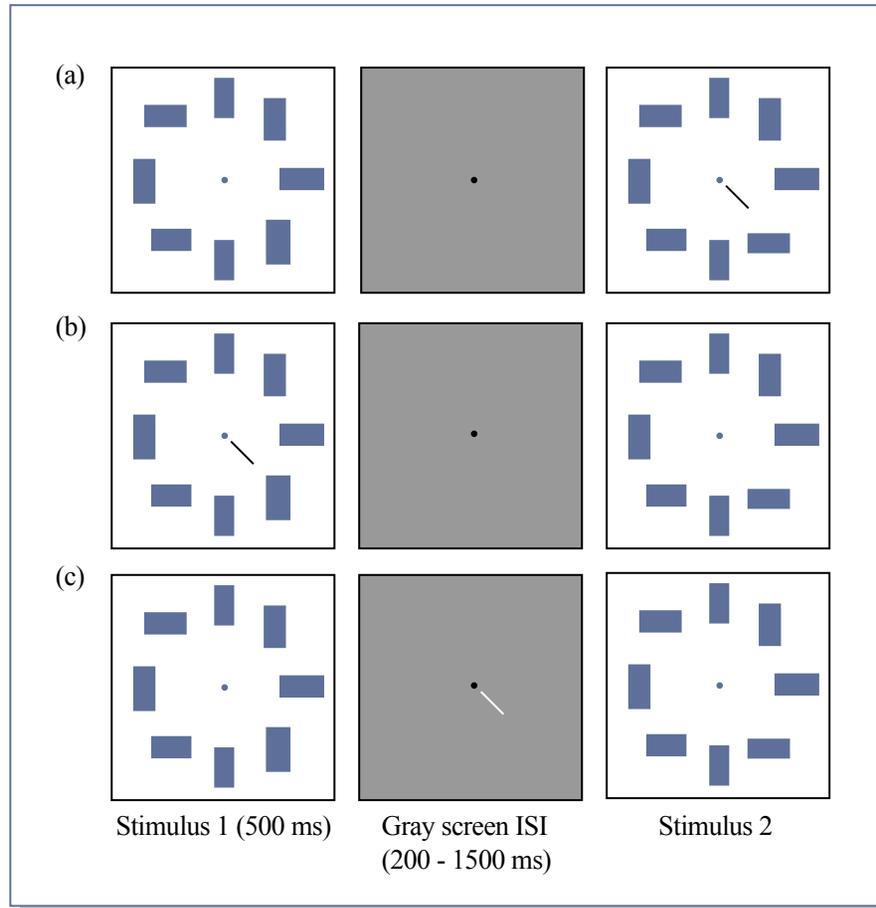


Image courtesy of MIT OCW. Adapted from Figure 1 on page 13 of Lamme, Victor. "Why Visual Attention and Awareness are Different." *Trends in Cognitive Sciences* 7, no. 1 (January 2003): 12-18.

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Figure by MIT OCW.

When some phenomenal items are accessed, something about the process erases or overwrites others, so in that sense the identities of the items are not all accessible. However, any one of the phenomenal items is accessible if properly cued, and so in that sense all are accessible. Another sense in which they are all accessible is that the subject knows that he sees them all (or almost all). What overflows is access to specific shapes of the sort that would allow the subject to identify and compare them. The upshot is that there is phenomenology without accessibility...in one sense of the term but not another...Of course, there is no point in arguing about which sense of ‘accessibility’ to use.



Figure by MIT OCW.

The argument of this paper is thus importantly different from the arguments I have given earlier...where I argued that the Sperling experiment directly shows the existence of phenomenal states that are not cognitively accessible. In this paper, the fact of overflow is used to argue for the conclusion that the machinery of phenomenology does not contain the machinery of cognitive accessibility. I will argue that there is a neural realization of the fact of phenomenological overflow—if we assume that the neural basis of phenomenology does not include the neural basis of cognitive access to it, and that is a reason to accept that assumption.
(18)

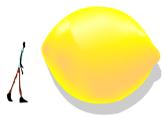


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the existence of phenomenal states that are not cognitively accessible = the fact of overflow

- doesn't this trivially entail

that the machinery of phenomenology does not contain the machinery of cognitive accessibility?



two 'remaining issues'

1. How do we know that the Sperling, Landman and Sligte effects are not retinal or otherwise pre-phenomenal?
2. How do we know we can believe subjects' reports to the effect that they experience all or almost all of the objects in the Sperling and Landman experiment? Perhaps subjects confuse potential phenomenology with actual phenomenology just as someone may feel that the refrigerator light is always on because it is on when he looks.
 - these are objections to the alleged fact of overflow



Figure by MIT OCW.

The argument of this paper depends on the claim that subjects in the Sperling and Landman experiments have phenomenal experiences of all or almost all of the shapes in the presented array. One objection is that subjects' judgment to that effect is the result of an illusion in which they confuse potential phenomenology with actual phenomenology.

- but what's the illusion, given that the subjects do see all or almost all the shapes in the array?
 - n.b. the relevant phenomenology is supposed to be unreportable



Figure by MIT OCW.

Dehaene and his colleagues...have given impressive evidence that our ability to report our phenomenal states hinges on such a global workspace and that the connection between perception and the workspace lies in long-range neurons in sensory areas in the back of the head which feed forward to the workspace areas in the front of the head.

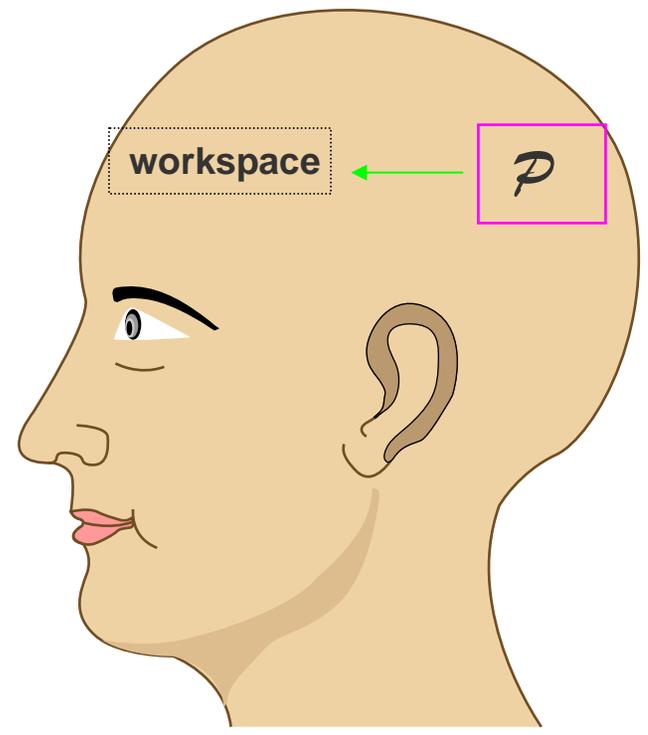


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Some information encoded in the nervous system is permanently inaccessible (set I_1). Other information is in contact with the workspace and could be consciously amplified if it was attended to (set I_2). However, at any given time, only a subset of the latter is mobilized into the workspace (set I_3). We wonder whether these distinctions may suffice to capture the intuitions behind Ned Block's...definitions of phenomenal (P) and access (A) consciousness. What Block sees as a difference in essence could merely be a qualitative difference due to the discrepancy between the size of the potentially accessible information (I_2) and the paucity of information that can actually be reported at any given time (I_3). Think, for instance, of Sperling's experiment in which a large visual array of letters seems to be fully visible, yet only a very small subset can be reported. The former may give rise to the intuition of a rich phenomenological world—Block's P-consciousness—while the latter corresponds to what can be selected, amplified, and passed on to other processes (A-consciousness). Both, however, would be facets of the same underlying phenomenon. (Dehaene et al.)

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What it is for representations to be in the workspace (I_3) involves both actuality (sent to the workspace) and potential (can be accessed by consuming mechanisms without further processing)...We might speak of the representations in I_3 (in the workspace) as cognitively accessible in the narrow sense, and representations in the union of I_3 and I_2 as cognitively accessible in the broad sense. It is narrow cognitive accessibility that Dehaene, et.al. identify with phenomenology. When I speak of phenomenology overflowing cognitive accessibility, I mean the narrow sense. In the rest of this paper, I will be using ‘cognitive accessibility’ in the narrow sense. The thesis of the paper is that phenomenology does not include cognitive accessibility in the narrow sense.
(25)

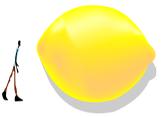


Figure by MIT OCW.

Here is the argument that the second half of this paper has been building up to. If we assume that the strong but still losing coalitions in the back of the head are the neural basis of phenomenal states (so long as they involve recurrent activity), then we have a neural mechanism by which phenomenology can overflow cognitive accessibility (in the narrow sense). If, on the contrary, we assume that the neural basis of phenomenology includes workspace activation in the front of the head, then we do not have such a mechanism. That gives us reason to make the former assumption. If we make the former assumption—that workspace activation is not part of the neural basis of phenomenology—we have a mesh between the psychological result that phenomenology overflows cognitive accessibility and the neurological result that perceptual representations that do not benefit from attention can nonetheless be almost as strong (and probably recurrent) as perceptual representations that do benefit from attention.