Does Consciousness Overflow Access?

1. Where are we?

- Last week we looked at Block's distinction between access and phenomenal consciousness.
    - Block suggests that the two could, at least in theory, come apart.
    - One upshot of this is that we could have conscious states that we are unable to access.

- This week we'll look at this idea in more detail: does consciousness overflow access?
    - What would it mean if it did?
        - You might not be able to accurately report the true nature or extent of your conscious experience (because doing so would require a level of access that you don't necessarily have to it.)
        - As a result, behavioural and verbal reports might systematically fail to track conscious experience.
        - That might make the empirical study of conscious experience intractable.
        - You could be systematically misled about the nature of your own conscious experience (because your reflective access to it would be more limited than your actual experience, e.g.)

2. Sperling partial report paradigm

One classic experiment that has been used to motivate the thesis that consciousness overflows access was devised by George Sperling in the late 1950's.

Subjects view a grid of 9 or 12 letters for a period of between 15 and 500 ms. Subjects are able to recall only 3 or 4 of the letters afterwards. But if they are shown the grid for the same period of time and then afterwards heard a sound prompting them to recall one particular line of letters, they can recall roughly 3 letters per line from a 12 letter grid.

- "How many letters do subjects actually see? More generally, how rich is our perceptual world?" (Phillips 2011)
- Why is their performance better when they are prompted to recall the letters from an individual row, than from the whole experience?

Hypothesis: subjects have an experience of about 9 of the letters in the grid. But the process of identifying and reporting that experience is difficult, and so there's a bottleneck between consciousness and access.

(At one point, Block suggested that this could be a case of P-consciousness without A-consciousness.)

Loosely the argument goes as follows:

1. You can recall 3 of the letters in a row when prompted
2. You cannot recall something you do not experience
3. So you experience 3 of the letters in each row

A. So, you experience roughly 9 of the letters in a grid

The limit on your ability to report them is not the limits of your experience but your access to it.

How else could we interpret these findings?

3. Phillips on Sperling

Ian Phillips has put pressure on this interpretation of Sperling…

The reasoning above relies on 2 assumptions

i. That the capacity to report seeing the presence of some feature supports a strong presumption that the subject enjoyed conscious experience as of that feature

ii. That it is legitimate to sum partial reports to establish awareness in relevantly similar cases, i.e. any aspect of experience present in a partial report condition would have been present even if some other partial report had been cued.

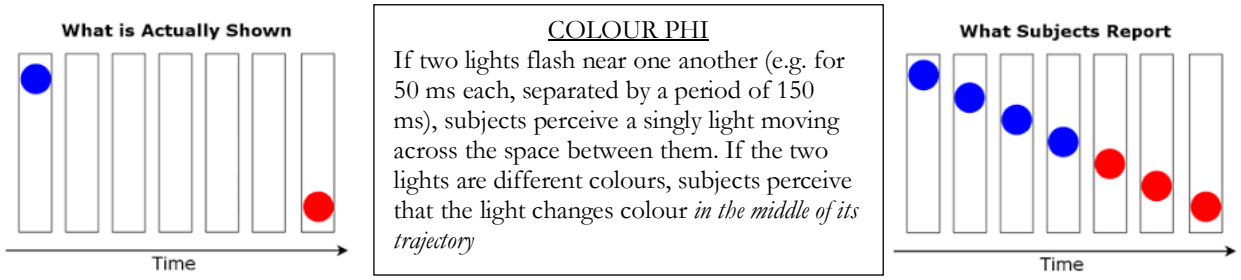
Phillips accepts the first but rejects the second. The second grounds an "independence assumption", that a subject's experience of the display in a partial report is independent of which report is cued…

That is supported by the following line of thought:

1. In these tests, the tone follows the stimulus
2. Cause must precede effect, so the tone cannot change your experience of the stimulus

B. So your experience in the two conditions (with and without the tone) is the same.

- Phillips argues that this line of reasoning is threatened by **postdiction**, the phenomenon whereby your experience of events at a time t_1 seems to be influenced by later events that occur at t_2…
- Postdiction makes available an interpretation of the results in term of cue-sensitive experience, i.e. the cue *changes the experience itself*, not just what you are able to report of the experience.



But how are we to understand postdicton? On its face it's a bit mysterious. As Goodman puts it when discussing the colour-phi phenomenon…"How are we able…to fill in the spot at the intervening place-times along a path running from the first to the second flash *before that second flash occurs?*" (Goodman 1978 p.73)

What is the whole deal with time and visual experience then???

4. Time and experience

Various visual illusions (colour phi, flashlag illusion, backward masking) suggest that vision is *postdictive*, that is, our visual experience can be influenced by stimuli which occur *after* the events we're seeing.

How should we understand these effects?

Daniel Dennett distinguishes between Stalinesque and Orwellian approaches.

Stanlinesque: there's a delay in the generation of conscious experience such that later stimuli can override earlier stimuli.

- Michael Tye: "our brains collect information a little into the future before an experience is generated, so that what we experience as the present is in reality a little in the past." (2003:91)
- You may represent the masked stimulus, e.g. but those representations fail to reach consciousness.

Orwellian: you have an accurate visual experience at the time which you then immediately forget / misremember

"An Orwellian account arguably introduces a seems / is distinction into the domain of subjective experience where many hold it does not belong. For although we can make sense of someone making a mistake about their inner life through inattention or irrationality, it is far from clear that we can make sense of experience in fact being on way and yet presenting itself to its subject in some other way." (Phillips p.395)

Phillips' Extensionalism: the extended experience is metaphysically prior to its subparts. There are no facts about individual moments of experience except facts that are derivative from the longer extended span. Denies the assumption that we can analyse experience down to individual instants as the discussion about Sperling presupposes.

Take home

- **Stalinesque** and **Extensionalist** approaches are consistent with the possibility that you do not have an experience of the entire grid. What experience you have depends on the tone you hear *after* the grid has been displayed.
- In which case Sperling does not establish that consciousness overflows access.

5. <u>Dennett's approach</u>

- N.b. Dennett then claims that the distinction between Stalinesque and Orwellian approaches *is not a real distinction* at the microlevel at which these effects occur in the mind.
- He argues that both presuppose a Cartesian theatre of the mind, with a homuncular consumer of the content broadcast there.
- Dennett favors a multiple drafts model of consciousness which denies that intuition. Instead the subject's viewpoint is "spatiotemporally smeared".
- There's just information, available to the brain (possibly with associated phenomenology)

"Cartesian materialism is the view that there is a crucial finish line or boundary somewhere in the brain, marking a place where the order of arrival equals the order of "presentation" in experience because *what happens there* is what you are conscious of." (p.107)

"Most important, the Multiple Drafts model avoids the tempting mistake of supposing that there must be a single narrative (the "final" or "published" draft you might say) that is canonical – that is the *actual* stream of consciousness of the subject, whether or not the experimenter (or even the subject) can gain access to it." p.113

"What Goodman overlooks is the possibility that the brain doesn't actually have to go to the trouble of "filling in" anything with "construction" – for no one is looking."

6. Friends of Sperling

a. Change blindness

Subjects fail to notice quite dramatic changes to a scene (to their later surprise).

b. Inattentional blindness

Subjects fail to notice unexpected stimuli when their attention is engaged on another task. The stimuli can be quite dramatic, of a kind that viewers strongly expect themselves to be able to detect. (Simons and Chabris 1999 for the prototypical result involving an invisible gorilla)

c. Gist perception

- We can accurately extract information about a set or scene as a whole, sometimes termed the "summary statistic" without being able to access information about specific members of the relevant set.
    - You can report the mean size of circle in a set, though you cannot recall the size of individual circles within the set.
    - Extends to a wide range of properties, e.g. hue, size, orientation, motion direction and speed, and facial expressions and gaze direction.

7. Is your visual experience the world a grand illusion?

What, if anything, do these effects tell us about perceptual consciousness?

- These phenomena have led philosophers of perception to ask whether our perceptual experience is an illusion. Do we even have the perceptual experience we think we have?
- Is visual experience rich or sparse? Is it highly detailed or actually very sketchy?

"According to the new skepticism, we have radically false beliefs about what our perceptual experience is like. Perceptual consciousness is a kind of false consciousness; a sort of confabulation. The visual world is a grand illusion" [Alva Noë p.1]

If visual experience is sparse, why do we have the sense it's rich? Why do we have the impression of seeing more than we can report?

Alva Noë's answer is that we *can* access all the detail if we attend to it, and *that* accounts for the phenomenology

"In general, our sense of the perceptual presence of the detailed world does not consist in our representation of all the detail in consciousness now. Rather, it consists in our access now to all of the detail, and to our knowledge that we have this access. This knowledge takes the form of our comfortable mastery of the rules of sensorimotor dependence that mediate our relation to our immediate environment."

Recommended reading:

- Dennet, Daniel *Consciousness Explained* Penguin. (1991) Ch.5
- Phillips, Ian, 'Perception and Iconic Memory: What Sperling Doesn't Show', *Mind & Language*, 26 (2011): 381-411.
- Noë, Alva. 'Is the visual world a grand illusion?' *Journal of consciousness studies* 9.5-6 (2002): 1-12.