

Consciousness Explained, Chapter 11 Summary “Dismantling the Witness Protection Program”

1. Review:

Scrutinizing the often unspoken but traditional assumptions about consciousness (aka the Cartesian Theater) we have seen why Dennett’s new “multiple drafts” model or as he prefers to call it more recently, “fame in the brain”, offers more explanatory power for results from cognitive science. Yet, we still feel the tug of many introspective or intuition based philosophical arguments. Continuing Dennett’s efforts to examine the philosophical implications of his model, we now turn to another major intuitive concern often heard: “But where does understanding happen?”

Backing up a bit, we might note that even Descartes got it right when, responding to objections that it was impossible to imagine that a sheep could mechanically respond to the perception of the wolf, he stated that this precipitation of the sheep’s flight no more involved the soul than a person throwing out their arms protectively when falling. This mechanical explanation of behavior is central to any materialistic theory of mind but runs headlong into one of our most deeply held intuitions: “for real understanding, someone has to be in there, to validate the proceedings...” (e.g., the Chinese Room).

Of course Descartes also famously insisted that in addition to all the mechanical goings on in the brain, there still had to be a central arena (which Dennett calls the Cartesian Theater), where, at least in humans, the soul (or Central Meaner as it is sometimes more modernly termed) could evaluate the sense data or “phenomenal properties of experience” and make decisions. It will be the task of this chapter to break through that heartfelt intuition.

2. Blindsight: Partial Zombiehood?

While no one would wish injury upon an innocent person, some accidents (brain injuries in particular) seem tailor made for philosopher’s thought experiments. Blindsight, which seems to make a person an unconscious automaton regarding some stimuli, especially fits this bill. However as Dennett will show, blindsight actually undermines the concept of zombies.

In blindsight an injury can damage one side of the visual cortex in such a way so that information from the opposite halves of the visual field from both eyes is not processed normally. This is termed a scotomata. Now we might suspect that this handicap might be similar to the normal blind spot that we all suffer from where the optic nerve penetrates the retina, creating an area of about 6 degrees almost centered in the visual field of each eye that we cannot respond to visually. To detect the blind spot takes a small amount of practice, but is worth the effort as it is undetectable normally. Try:

<http://library.thinkquest.org/C005949/fun/blindspot.htm>

I had to be about 12” from the screen for the link above to detect my blind spot. Now even with one eye closed we don’t normally notice our blind spot- so why is that? Simply because your brain has no resources to deal with information from that part of our visual field. You don’t notice it because an absence of information is not the same as information about an absence.

Like normal blindspots, scotomata have locations and boundaries and can be detected and mapped by an experimenter using a moving source of light just like in the URL above. The subject can report when the light is no longer experienced and reports such as these can be correlated with maps of damaged areas in the brain using CRT or MRI.

Now the interesting thing is that these scotomata are different from normal blindspots in that the subject is usually aware of the loss of information in these regions. Not that they can see anything there like a large black spot in their vision, but because the damaged brain cells that previously reported to other brain cells no longer function, this lack of information disrupts the brains normal expectations of sensory flow.

But even more amazing is that for some sufferers of scotomata, even though they say they experience nothing in that missing field of vision, they do exhibit an amazing talent for “guessing” the shape or brightness of objects in that missing field of vision. This is the phenomenon of blindsight, and though still controversial, researchers do not assume paranormal phenomena at work. See this link for some alternative scientific explanations:

<http://mitpress.mit.edu/catalog/item/default.asp?ttype=6&tid=4454>

So what is going on here? Is it, as some philosophers have suggested, visual perception without consciousness, of the sort that might be exhibited by automatons? Does it provide a disproof of the functionalist theories of the mind by demonstrating a case where all the functions of vision still occur “but all the good juice of consciousness has been drained out”? Dennett suggests that philosophers in their rush to invoke blindsight as support for their intuitions have overlooked some elementary facts about blindsight and the experimental settings in which they are measured.

Dennett points out two steps in evaluating the claims of blindsight. First, we have the uncontroversial claims that blindsight involves receipt of visual information. This we can accept based on the fact that subjects do much better than chance on tests that probe for that information. The second claim is more controversial because it involves heterophenomenology. We only find the phenomenon of blindsight amazing because the subjects claim that they are not conscious of the visual perception. In other words we have to accept their reports as incorrigibly accurate descriptions of what is actually going on.

Notice if, for example, we suspected the subjects were just making it up and that they were lying about not being conscious of these visual perceptions. We would then find nothing extraordinary going on with blindsight. But more realistically, Dennett asks to compare our acceptance of the claims by blindsighted individuals to the claims of those suffering from “hysterical blindness”. People whose eyes and brains are, physiologically functioning perfectly, but nevertheless complain that they have been struck blind and support this claim by behaving “just like a blind person.”

We can find reasons enough for motivating hysterical blindness, such as punishment to themselves or others who must now care for them, or perhaps as a panic response to illness or some traumatizing experience. So this is really psychosomatic blindness and we might then ask: are these people really blind? They might be, after all psychosomatic pain and nausea are real enough.

In fact hysterically blind people claim to be blind, but like blindsight people they give evidence that they are taking in visual information. For example, hysterically blind people typically do significantly WORSE than chance when asked to guess about the visible features of objects. They seem to show an uncanny knack for finding chairs to bump into, yet they sincerely claim to have no visual experiences. Heterophenomenologically, how are we to treat the reports of these two groups of subjects that both seem to be processing some visual information, yet both claim to not be detecting visual information?

Now we can see where the cautious policies of heterophenomenology pay off. We accept the reports of subjects as their sincere and best efforts at reporting exactly how it seems to them without necessarily accepting their claims at face value. Both blindsight and hysterically blind subjects are apparently sincere in their avowals that they are unaware of anything occurring in their visual fields, yet we all know there is a difference.

The difference is simply that we know less about the neurological condition of hysterical blindness, whereas in the case of blindsight we have brain scans showing brain damage, which makes us much more skeptical of the claims of the hysterically blind. Perhaps we think the hysterically blind are conscious in some way or some degree for the simple reason that, without prompting, hysterically blind people sometimes use the information from their eyes in ways that blindsighted subjects do not.

Here is the key: blindsighted subjects have to be cued to do better than chance in their guesses. Without prompting, they do even worse than hysterically blind people by forfeit. They never even guess! Consider the following: how would we feel investigating a variation of blindsight where the subject spontaneously

volunteers their reports of visual stimuli? If our subject reports to us, unprompted, “This is only a guess, but did you just shine a light in my scotoma?”, but only when we really did shine the light, we might be a little suspicious of what exactly was going on.

It sounds so simple, yet it is almost completely ignored in these experiments, that we generally assume when subject comply with their instructions in the experiment, they were able to comply because they have been conscious of experiencing the tested stimulus.

We don't say for example: whenever you are conscious of the light going on, press the left button, but when the light goes on and you are not conscious of it, press the right button. The reason this is nonsensical is because the standard assumption is that you have to be conscious of something to report it verbally or otherwise.

However, we already know that we are able to unconsciously detect many phenomena without being conscious of them, for example, policies regulating our body temperature, adjusting our metabolism, storing and utilizing energy, activating our immune systems, etc. Even our responding to emotionally triggered stimuli can be seen as a not wholly conscious process. These behaviors are what Damasio would call the homeostatic level and emotional levels of awareness.

Now all this might mean that we have at least two different ways of being conscious of things. One is our body's way of being aware and the other, by definition, our consciousness. One is “blindly mechanical” (though upon consideration still incredibly sophisticated) and the other is deliberate and able to reflect on the pros and cons, so to speak. So it would seem that our subject following our verbal instructions and reporting an experience verbally, seems to unproblematically be a conscious policy in action. It just doesn't seem possible that someone could talk it over and then decide to follow an unconscious policy, hinging on unconsciously detected events.

But there is a loophole here. We can imagine a subject that with enough practice and some strategic forgetfulness, could start from a verbally conscious policy and then gradually move to a state of following a policy unconsciously by reacting to stimuli that we are not conscious of. Can anybody here remember learning to ride a bicycle? This transition from an instructed conscious activity responding to consciously aware sensory data to an unconscious activity can occur, but especially in certain cases if the link to the verbal consideration of the conscious policy were somehow broken.

You've probably heard of odd cases where the limbic connection to the visual cortex is damaged which still maintains the capacity for consciousness of visual fields but without the emotional nuances we all take for granted (Capgras' syndrome). In these cases, subjects report that they can recognize familiar faces but claim they are imposters- not the real person.

<http://redwood.ucdavis.edu/bruno/psc129/handouts/rama3.pdf>

We could imagine a similar situation in which the visual cortex is damaged but instead of the limbic system connection being affected, the connection that allows for the capacity for verbal reports is affected. Since we have already seen that consciousness is at least partly defined by the ability to give unprompted verbal reports of experiences, we can easily see the implications for this in blindsight subjects.

So we might imagine a process by which even blindsight subjects, starting from some better than chance ability for guessing, and given feedback, were able to learn with practice to improve their accuracy for guessing when prompted. In fact it has already been demonstrated that some blindsight subjects have maximized their “talents” in this way, but let us add another wrinkle to the thought experiment.

What if we now ask our blindsight subject to start guessing without cueing? To just guess “whenever the spirit moves you” and let's suppose, like the effort in improving the prompted guessing, we provide feedback to the subject. We might obtain two outcomes:

1. The subject never does any better than chance. That is, there seems to be no way the feedback or practice improved the subjects unprompted guessing.
2. The subject eventually becomes able to do better than chance without prompting from the experimenter or any temporary feedback.

We don't know how probable the outcomes of such testing would be but we can ask ourselves that if alternative 2 was realized, would this new found ability somehow make our subject conscious of these stimuli? You can ask yourself how your intuition strikes you on this question, but at least one blindsight subject has spoken out on a similar circumstance. DB, one of the subjects studied by Weiskrantz, is a classic blindsight case and like some blindsight subjects he can report, when a light is moved slowly across his scotoma, whether the light was moved horizontally or vertically with significantly better than chance guessing, but only when prompted. However, when the light is moved faster, DB is able to report, without prompting, an accurate "guess" of the motion of the light. And when asked, DB insists that of course he is consciously experiencing the motion of the faster light, how else could he report it? Other blindsight patients also report conscious (unprompted) detection of motion. In other words, is consciousness in the visual sense merely a matter of the amount (or richness) of information detected by the visual system? For more on this discussion see Dennett's comments to criticism by Charles Siewert:

<http://ase.tufts.edu/cogstud/papers/liveedge.htm>

3. Hide the Thimble: An exercise in consciousness-raising

Now Dennett turns his attention to "intentionality". Which is a word derived by metaphor from the Latin "intendere arcum" which means to aim a bow and arrow (at something). Although most philosophers today only consider the word in its abstract sense of thinking "about" something, it is worth noting that there is an enormous number of functional processes in the body and brain for the purposes of effectively attending to, keeping in touch with, tracking and trailing things. In the crudest sense this means staying in physical contact with something but at the next more removed level it can mean staying in touch with something by tracking it with one's eyes which involves a certain amount of more than passive perception.

In the game of "hide the thimble" which I confess to having played with both adults and children and with hilarious results, the rules are simple. All players examine the thimble carefully, then all but one exit the room and that person hides the thimble in plain sight after which the other players re-enter the room and attempt to locate the object. After finding the thimble each player attempts to contain their glee and merely takes a seat indicating to the other players that they were successful. The comedy ensues especially after there are only a few players left, when the successful players can see that Betsy is staring right at the thimble but simply not seeing it. From the other players giggles and gasps Betsy herself knows she is staring right at the thimble yet it does not register in her consciousness.

We can describe a representational state in Betsy's brain that "includes" the thimble, but no perceptual state of Betsy is "about" that representation of the thimble. Of course one of her conscious states includes the "search image" that she is concentrating so fiercely on, but no connection exists between her visual field and the thimble. Even though we might imagine that it might be possible for some outside observer with a sophisticated brain scanner to recognize the thimble in her visual field.

What is it that Betsy must do to connect the perception of the thimble with her representation of the thimble? Clearly this searching process is a feedback-guided, error corrected, gain adjusted purposeful linking for things that we intend to "do something about it because I saw it". Once this connection is made in normal circumstances this might mean maintaining the object in view, or getting a better look at it by improving the contrast with the background, etc. Failure to do so may prevent use from seeing the object in an important and basic sense of the term (interestingly experiments show that identification and location capacities in the brain are to a large degree independent which demonstrate that identifying and seeing are separate processes).

So was the thimble somehow “present” in Betsy’s consciousness before she spotted I? It is not under dispute that Betsy had the thimble in her visual field, and it is clear enough that it wasn’t in her foreground consciousness because she couldn’t report on it, but was it in her “background consciousness” or not at all?

Dennett suggest the answer to this “first person point of view” stumper is to examine what can be learned from the third person point of view. In chapter 8-10 we discussed the “Pandemonium process” in which the eventual connection of contents with expressions was the “culmination of competitions, the building, dismantling and rebuilding of coalitions” within the brain. Entering the fray without perpetuating for long might send various one-shot “ballistic” effects rippling through the system, but this would be close to unreportable. For reportability there must be a stable configuration that can identify and re-identify the global effect. “Do I see the thimble? Yes! No, that wasn’t it... no, no...”

See this link for recent evidence that sleep unconsciousness is not the shutting down of brain regions but rather the fragmentation of the normally interactive global processes between the different brain regions.

<http://www.physorg.com/news6873.html>

This effect of stable reportability is reminiscent of the training we gave our blindsight patients and is also seen in wine-tasters and ear-training in musicians.

Any of you that have learned to tune a guitar by listening to the “beats” produced by two strings close in pitch will understand that it is an interesting question as to why people need to learn to hear something that they must have been picking up in their ears the whole time, but simply not aware of. Simply put, as a result of training you are now conscious of things that you were previously not conscious of.

Of course in an obvious sense, the interference that causes the out-of-tuneness can be seen to “contribute” to the experience of hearing, but not actually be “present” in consciousness. But the functional status of these unheard beats is the same as the events occurring in blindsight: “the subject is unable to report the particular contributions, or hinge policy on their onset, but the results of these contributions can still be made manifest in the subjects behavior, for instance in the subject’s capacity to answer artfully posed questions.

Dennett suggests that there is nothing more to “being in the background of experience than that”. That a strengthened link of the sort described for guitar tuners and wine tasters could be built up in a blindsight subject to the point where they would declare they had now become conscious of the stimuli, whereas before they could only guess at.

Our antagonist Otto might now object that this enhanced capacity still isn’t visual consciousness, it wouldn’t really be like seeing. The “qualia” of seeing would still be missing and Dennett accepts that this might be so or maybe not. The problem with Qualia (to be taken up by Faustus in the next chapter) is that they “seem” terribly obvious at first, but have a way of changing their status or vanishing altogether under scrutiny. In the mean time Dennett suggests that we first examine a number of properties that are not “phenomenal qualities” but are often mistaken for them.

4. Prosthetic Vision: What, aside from information, is still missing?

The question is: does DB (the blindsight subject we discussed earlier) actually “see” the motion of the light? Well he certainly doesn’t hear it or feel it, but is it vision? Does it have the “phenomenal qualities” of vision?

Weiskrantz says that as the stimulus “salience” increases, these patients may insist that they still do not ‘see’ but they now have a kind of “feeling” that something is there. In some cases if the salience is further increased a patient may say they can “see” but that the experience is the not veridical in that DB will report he does not “see” the rapidly moving light as a coherent moving object, but he can report complex patterns of “waves”. Other subjects report dark shadows emerging as brightness and contrast are increased.

So the rapidly moving object is not “experienced” by DB as having shape or color but does that mean he does not “see” the object? Those of you that performed the peripheral vision experiment with the randomly drawn playing card will know that one can “see” the card as a “visual experience” yet not perceive the color. If normal sight is capable of these uncertainties then so should blindsight. See this excellent link for more on “The Grand Illusion” of visual awareness from Andy Clark:

<http://www.cogs.indiana.edu/andy/jcsrev.pdf>

Whether the ability to “see” is obtained by receiving visual information in non-normal ways is exemplified by Dennett in his descriptions of a number of prosthetic experiments performed on blind patients which I will not summarize here. Except to say that the results would seem to indicate that not only can visual perception be adapted to a variety of inputs, but that the degree of emotional reaction associated with the “experience” seems to be correlated to the “richness” of the informational stream.

So now let us guide our imagination about what it would be like for a blindsighted subject to regain more visual functionality, by first imagining a cortically blind person, who after rigorous training has not only managed to convert his ability to guess when to guess into second nature, but can play Hide the Thimble with the best of them and has increased the speed and detail of his guesswork by orders of magnitude. We find such a infinitely well trained subject chuckling at a newspaper comic and ask him to explain himself. We might get the following responses:

1. “Just guessing, of course! Can’t see a darn thing, you know, but I’ve learned to guess, and right now you’re screwing your face into a look of utter disbelief.”
2. “Well, what started out as guesses gradually lost their status as guess as I came to trust them. I would suddenly just know, and I could then express my knowledge and act on it. What began as conscious guesses turned into conscious presentiments and now they come so fast and furious I can’t even separate them. But I still can’t see a darn thing, it isn’t much like seeing at all.
3. “Well actually, it’s very much like seeing. I now effortlessly act in the world on the basis of the information gleaned by my eyes from my surroundings. Of course I can still be self-conscious about what I’m getting from my eyes if I want to be. It’s just that generally I just react to colors, shapes and location without thinking.

And yet we could still imagine our subject saying that something is still missing: “Qualia. My perceptual states do have qualia of course because they are conscious states, but I don’t have visual qualia in spite of all my training.”

To those of you that find it obvious that this last statement makes sense, please keep reading.

5. “Filling in” versus finding out

Dennett now takes on the task of attacking the widely held belief in “filling” in by the brain in perceptual processes from the blindspot, to speech interpretation and even reading. The examples are here:

<http://ase.tufts.edu/cogstud/papers/fillin.htm>

The strong version of Dennett’s theory regarding filling-in of the blind spot has been challenged in several neurological studies by Ramachandran. Ramachandran suggests that some simple “filling-in” occurs for certain visual primitives such as lines and other simple boundaries that cross the entire blindspot field (but not for objects only on one side). See this very recent study:

http://www.psy.vanderbilt.edu/tonglab/publications/awater_kerlin_evans_tong2005.pdf

The problem with all of these studies is that separating the sensory perception processes from the conceptual processes is very difficult. As Faustus says “Obviously there is no good reason to think the two

domains are separated by some sort of conceptual or physiological wall. Blindsight shows this. When blindsight subjects give their accurate guesses, it seems to be more towards the cognitive end of the spectrum. And when we encounter subjects who can spontaneously volunteer details about motion or shape, we head more towards the perceptual end.”

Dennett in a recent personal communication admits that he hasn't responded forcefully enough to some of the new neurological experiments, but notes "...one point now: Ramachandran's 'artificial scotoma' takes a second or two to develop, which shows that this is NOT an effect that occurs in normal vision, since the eye is never at rest for much more than 250msec unless deliberately fixated.”

An earlier update published soon after CE on visual perception and filling-in by Dennett, with a response to Ramachandran and Pat Churchland is here:

<http://ase.tufts.edu/cogstud/papers/seebelie.htm>

where Dennett makes the point more explicit by stating: “Jumping to the conclusion that it's more of the same is 'adding something' - it is to be distinguished, after all, from not jumping to that conclusion at all - but it is not filling in. The difference I am after is the difference between jumping to a conclusion and stepping to a conclusion by making some bogus steps on which to rest the conclusion (e. g., paint in the region, and then use that painted-in region as one's 'evidence' for the conclusion subsequently drawn.). The way to test my hypothesis that the brain does not bother filling in the 'evidence' for its conclusion is, to see if there are effects that depend on the brain's having represented the step, rather than just the conclusion.”

and especially here (see in particular section two from which I quote the following):

<http://ase.tufts.edu/cogstud/papers/backdraw.htm>

“They propose to sweep the decks of "needless metaphysical tut-tutting" by claiming that their talk of filling in is only a convenient shorthand; speaking this way does not commit them to any silly view that holds that when someone sees an apple "there might be a little (literal) apple or a (literal) picture of an apple in someone's head which is the thing that is filled in." Good. Then to what does their convenient shorthand refer? "Merely to some property of the brain's visual representation such that the perceiver sees a nongappy apple." But what does *that* mean? This is the whole issue.

They begin by confronting a choice, an either/or with two alternatives. What is going on, they ask, when one's blind spot is seen as filled in? Is it analogous to acquiring a non-visual representation . . . or is it more akin to regular visual perception of the whole Bowser[?] in one's *peripheral but nonblind field*? That is, is the representation itself a visual representation, involving visual experiences?

The contrast is not as clear as they may think; there seem to me to be intermediate alternatives. The difference they are alluding to is exemplified, one gathers, by the difference between coming to believe that there is a dog under the table by *deducing* this from various non-visual clues (including, perhaps, a trusted friend whispering in your ear "There's a dog under the table!") and coming to believe there is a dog under the table by *seeing* it in one's peripheral vision. The latter case, but not the former, involves "visual experiences." And if you just see the dog's tail out of the corner of your eye and infer the rest, this is presumably a mixed case, partly involving visual experience, partly involving visually unclothed inference. What, then, about watching a dog walk behind a picket fence? There is no deliberate, conscious deduction of the hidden bits, certainly, but in some sense they are inferred--*and* your brain accomplishes this (I reckon) without having to draw in, or paint in, or in any other way fill in the hidden bits. You don't "just think" there's a whole dog; you *see* that it's a whole "nongappy" dog walking behind the fence; this is certainly a "visual experience" even though its completion (so that you see what's in front of you *as* a whole connected dog) involves jumping to a conclusion about what is missing.

At any rate, that is how I would put it, but this courts misunderstanding. Churchland and Ramachandran take the contrast to be between peripheral visual perception and entirely non-visual perception (or just belief), but I am just as insistent that there is no "filling in" in normal peripheral vision as in the blind spot.“

Dennett's point here for this chapter and implications for blindsight are illustrated by the following example of Andy Warhol wallpaper with hundreds of miniature Marilyn Monroe portraits:

Based on our knowledge of our peripheral visual field's sensitivity (e.g., the playing card experiment where we can't distinguish a Jack of Diamonds at arm's length) we would not be surprised to learn since we saccade our eyes only three to five times a second, we would only be able to see a fraction of the portraits as we enter the room as anything more than Marilyn shaped blobs. However, we instantly jump to the conclusion that the room is uniformly covered with detailed Marilyn Monroe portraits.

Could the brain have taken one of its high resolution views and copied it all over our visual field? Unlikely that the brain would go to all that trouble. What would be the perceptual value of that cognitive effort? More likely is that having identified a single high resolution Marilyn and receiving no information that the other similar shaped blobs are not also Marilyns we jump to the conclusion that they are all detailed Marilyns. Dennett suggests some experiments to test this empirical claim in his appendix. The key is understanding what the phrase "jumping to a conclusion" really means.

Of course it "seems" that you really are seeing a wall of uniformly detailed Marilyns, and in one sense you are. They are indeed really there (and if your eyes dart around to check that assumption it would be confirmed). But there are not hundreds of detailed identical Marilyns represented in your brain. Your brain simply represents that there are hundreds of detailed identical Marilyns out there, no matter how vivid the impression is to you that they are in your head. The detail is out there in the world to be confirmed or not, but it is not in your brain. Your brain does not use neurons to represent or fill in the detail of each of the unexamined Marilyns.

Dennett sums it up from the above link in his response to Ramachandran and Churchland as follows:

"For instance, there is nothing "non-visual" about your discovery, on entering a room, that it is covered wall-to-wall with identical photos of Marilyn Monroe, but that discovery *must* be way out ahead of the information your eyes have taken in, since your peripheral visual system is simply unable to distinguish the peripheral Marilyns from Marilyn-shaped blobs. I count "jumping to a conclusion" (e.g., jumping to the conclusion that the room is papered with identical Marilyns) as the brain's "doing something positive" but not as "filling in" because although the brain does indeed add information as it draws the conclusion, it doesn't then go on to draw the Marilyns--nor is its conclusion based on any extrapolative drawing it has already done. Or so I claim. "

So the implication for consciousness is that (just as we never notice that our eyes are constantly saccading), what is striking about consciousness is not its continuity, but rather how much discontinuity we aren't actually aware of. This discontinuity is striking because it "seems" to us that consciousness is continuous, the point being that we don't notice what we constantly "miss".

6. Neglect as a pathological loss of epistemic appetite

As we have seen, the brain's motto is "ask me no questions and I'll tell you no lies". So long as the brain can conclude that it understands a given situation and obtains no evidence to the contrary it does not notice striking changes in its visual field. But there are occasions where the brain's conclusions regarding when it has a satisfactory level of information are pathologically wrong. As Dennett puts it "these are the pathologies of neglect."

One such form is "hemi-neglect" in which one side of the body and its perceptual information is ignored (usually the left side due to brain damage to the opposite side). For example, if a group of people stand around the bed of a hemi-neglect patient, the patient will tend to only see the people standing to their right. Asked to count the people they will tend to overlook the people on the left and will tend to overlook someone on the left trying to attract their attention.

Yet, it has been shown that the left side of the brain is still receiving and processing information from the left side. What can be going on inside the brain? Could it be that the “left side of phenomenal space is a blank”? Or does the patient’s ‘mind’s eye’ fail to see the material that the brain provides for it on the left side of ... the stage in the Cartesian Theater?”

Dennett suggests that there is a simpler explanation related to neglect. That just as there are no homunculi that “care” about data from the blind spot, perhaps the “epistemic complainers” for that side of the visual field have been damaged beyond their ability to care. Kinsbourne (1980) calls these complainers “cortical analyzers” which Dennett describes in terms of the loss of global or “political clout” by certain “parties of demons” due to death or suppression of their “representative”. The demons are still active but can no longer form organized coalitions to dominate global workspace.

In this model the benign neglect of our blind spots shades almost imperceptibly into the various mildly dysfunctional neglects we all suffer from (e.g., difficulty in absorbing visual evidence contrary to or inconvenient for prior conclusions). These forms continue to grade into the more debilitating organic based pathologies such as syndromes where the sufferer does not notice that they are color-blind or even that they are seriously blind.

All these conditions are easily explained by the multiple drafts (or fame in the brain) model that Dennett proposes, once one replaces the central Meaner or Witness with coalitions of specialists whose own epistemic hungers cannot be immediately adopted by other agents if they are damaged or “on holiday”. When these particular epistemic hungers vanish so does the influence of the information they were assigned to promote, leaving the field to other agents with different specialist agendas.

Earlier Dennett suggested that the purported “missing visual qualia” of our blindsighted yet self-prompting virtuoso might be related to the paucity of the information he now obtains using different processes for visual awareness. And that by increasing the “baud rate” of his information gathering some if not all of the gap between his vision and normal vision might be bridged. However, now we have another alternative to consider: epistemic neglect. As Dennett says: “after all, if in Anton’s syndrome a person can be utterly blind and not yet realize it, [perhaps] a bit of strategically placed neglect could turn our blindsight subject, who complains of a loss of visual qualia, into an uncomplaining subject who declares his vision to be flawlessly restored. It may seem to us that something is missing in such a person, but what could it be?”

7. Virtual presence

Once again, the absence of representation is not the same as the representation of absence. By the same token the representation of presence is not the same as the presence of representation. What does this last statement mean? Dennett is saying that the representation of a property is not the same as information about the representation of that property. As we have seen in chapter 6, time is not represented in the brain chronologically, even though all our intuitions cry out against this conclusion. We seem to feel that we are directly aware of these special properties or features of our visual experience. Let’s allow Otto have his say:

“Since you say that there really aren’t hundreds of Marilyns in my brain, but since I do really seem to see hundreds of Marilyns, these images must be in my non-physical brain! Dualism is correct!”

Maybe, but Dennett argues that the brain has no need to store hundreds of detailed Marilyns anywhere, much less in an immaterial, undetectable medium. The world is already storing them for us, why not just leave them there? We can simply store our conclusion that there are hundreds of Marilyns out there, until we need to perform further testing or verification. Of course how can we tell whether we are actually storing the conclusion or the hundreds of actual detailed images? We could appeal to economies of evolutionary development and test these ideas heterophenomenologically, but one thing is clear: We think we can tell through introspection, although much evidence in hand strongly suggests that we can’t.

The difficulty is that the visual process is extremely temporal, with peripheral parafoveal neural agents specializing in responding to change and motion instantly triggering a visual saccade, bringing the fovea to bear on the designated region of interest.

Dennett then recounts his own experiences with eye-tracking apparatus where it can be demonstrated that changes during the eye saccades are simply not noticed. It may seem as though the page of text on the computer screen is fixed in marble, but to another observer the screen is aquiver with motion. Why does the brain shutdown the visual system during the saccade interval? Because your visual field would be full of wildly slewing motion most of the time. This is not unlike the bat, which must internally close its ears to emit the ultra-sonic squeak to avoid deafening itself. Maybe we don't know what it is like to be a bat, but we might suspect that just as we don't notice saccadic breaks in our visual continuity, the bat may not notice gaps in its hearing continuity.

In the change blindness experiment above, even though it seems to you that you must have been aware in some significant sense of the very next word after the word your fovea is currently focussed on, that is simply not the case. Your brain has no record or memory of it to compare with the current visual representation you now have. The other words on the page are simply not there in the sense that we assign to them. They are thimbles we haven't found yet. Of course they are there in some sense. Enough of a sense that you can follow the line of words on the page while you read, but there is nothing there in the brain that could have made a difference to Otto's own experiences of the Marilyns.

8. Seeing is believing: A dialog with Otto

Well now Dennett feels it's time for Otto to have an extended chat, because some of you might feel that your own intuitions are simply not getting aired. I will have to follow Dennett's text pretty closely to give it conversational coherence but I will also need to shorten it for brevity, so apologies to the original author.

Otto says: "It seems to me that you've denied the existence of the most obvious aspect to experience that even Decartes did not doubt: "the real seeming". Dennett admits that that is exactly what he denies existing and suggests that Otto consider the neon-color spreading example on the back of his dust jacket. A link is provided here for this striking effect:

http://www.michaelbach.de/ot/col_neon/

Otto agrees that there does seem to be a pinkish glow around the color spokes and Dennett concurs after a little teasing and Otto goes on to say that it's more than that. His "seeming" is real; for it really does seem to him that there is a pinkish glow around the spokes. That it's a "real seeming".

Dennett now pounces on this admission pointing out that there is no difference to merely thinking there is a pinkish glow there and something that really, truly seems to pink to Otto. There is no more to "really seeming" than there is to the phenomenon of judging one way or another how something is.

Recall the Andy Warhol Marilyn wallpaper. You entered the room and made a snap judgment about how the wallpaper seemed to you. It seemed to you that there were hundreds of detailed miniature Marilyn portraits all over the walls. And because the walls are in fact covered with hundreds of detailed Marilyn portraits your visual experience accurately ascertained the real world. But you might have walked into a room in which (it so happened) that the first few Marilyn portraits, through mere happenstance, that your fovea saccaded to were the only detailed portraits out of hundreds of Marilyns shaped blurry blobs. In that case, "how it seemed to you" would have been an inaccurate representation of the real world, yet for a fleeting moment you would probably have made a snap judgment that you just knew that the room was covered with hundreds of detailed Marilyn portraits (or so it seemed to you). The point being that how something seems to be does not need to be decoded anywhere in the brain any more than how something seems to be colored. It's a judgment- that all.

Now it's Otto's turn: "But what is it then that seems glowing pinkish to me? What is your account of where that pinkish glow is?"

Dennett apologizes but says that to explain this coherently he will have to start with a caricature and then revise it a little. He asks us to suppose for a while that there really is a Central Meaner inside the brain and instead of it watching the Cartesian Theater it simply sits in the dark and has presentiments- for example it just suddenly occurs to it that there is something pink out there. Otto reasonably asks “ What are presentiments, exactly? What are they made of?”

Dennett still answers in caricature, first proposing that presentiments are propositions that the Central Meaner exclaims to itself in its own special language, Mentalese. These series of internal judgments, often proceeding at tremendous speed are sometimes translated into actual utterances such as “Looks pink to me”.

Now Dennett suggests that this theory has the enormous benefit of eliminating the “figment, the projection into phenomenal space, the filling in of all the blanks on the Theater Screen” which we already know doesn’t actually occur in the brain. But it still leaves the Central Meaner and the Language of Thought, which likewise are merely unsupported intuitions about how the brain functions and in opposition to evidence from neurology. So Dennett further suggests that we simply eliminate the Central Meaner and distribute all his high speed internal judgements around in space and time within the brain- where “each act of discrimination or discernment or content-fixation happens somewhere, but there is no one Discerner doing all the work.” A claim which is well supported by the brain studies we have examined already in previous chapters. And furthermore Dennett suggests we eliminate the Language of Thought (he’s not called an eliminativist for nothing!) by saying “ the content of the judgements doesn’t have to be expressible in “propositional” form- that’s a mistake, a case of misprojecting the categories of language back onto the activities of the brain too enthusiastically.”

Otto tries to consider this idea: “So presentiments are like speech acts except that there’s no Actor and no Speech!” Yes. Dennett suggests that Otto think of this brain activity as events of content fixation and discrimination occurring in various places and at various times within the brain. But these discriminations are not speech acts because they aren’t somebody’s speech acts, even though they are like speech acts in that they have content and they do assist in informing other processes in the current cognitive context, which could lead to other global decisions and behavioral acts some of which might lead to utterances of “how it seems to us”. Hence the illusion of an actual Author inside the brain.

This is all too much for Otto who asks “But what about the actual phenomenology?”

There ain’t no such thing. Here Dennett invokes his often misunderstood comparison to the fictional novel. Let’s say we examine a novel that is a loosely veiled autobiography and we find that we can map some of the fictional events in the novel onto many of the real events in the author’s life. The author might not even be consciously aware of these connections, but in this strained sense those events in the author’s life are what the fictional text is about, because those actual real world events explain why this particular series of fictional events got created by the author in his writing of his book.

In a similar fashion Dennett is merely asking us to consider the idea that unconscious processes within the brain could create a narrative center of gravity of “how it seems to us” that is a generally but not infallibly accurate series of judgments about the real world. That these judgments, based on the various discriminative and content fixations by various highly adept and high speed but unconscious specialist brain processes, are exactly what result in the observable behavior and speech utterances that “seems to be phenomenology”. Yes, consciousness seems to be a stream of uninterrupted ideas, but this is an illusion. Scientific study shows that consciousness is not a plenum, it “is gappy and sparse, and doesn’t contain half of what people think is there!”

But Otto starts to protest that consciousness sure “seems” to be a plenum, but then admits “I know, I know: it doesn’t follow from the fact that it seems to be a plenum that it is a plenum.” But Otto has another objection to Dennett’s eliminativism: “You say it is only as if there were a Central Meaner, as if there were a single Author, as if there were a place where it all comes together! I don’t understand this as if business!”

Dennett offers another thought experiment to help bridge this intuition gap: imagine we visited another planet and discovered that the native scientists there had a theory that every physical object has a soul and that soul loves every other soul and tries to move towards it, impelled by the love of their internal souls. These native scientists might even have worked out the physics of these soul-placements and discovered that they could answer questions about the location of the soul such as “The object will fall over if the soul is too high, and so forth”. Of course we would understand that they had merely discovered the concept of the center of gravity, and added some unnecessary metaphysical baggage to it. These native scientists might then ask us: are there souls and we could say well yes, but they’re merely abstracta, mathematical abstractions rather than nuggets of mysterious stuff. They are in fact, extremely useful fictions.

Otto is depressed. You’re asking me to give up my soul, he says. Dennett tries to console him: “All you’re giving up is a nugget of specialness that couldn’t really be special anyway” What is so special about a mind-pearl in the brain-oyster? Otto replies: “A mind pearl might be immortal, unlike the brain.”

And there you have it. But Dennett agrees that the idea that the self or the soul is really just an abstraction strikes many people as a negative idea, a giving up of something. But Dennett says this idea has a lot going for it, including (if you actually care about it), a more robustly conceivable version of potential immortality than the infantile fairy tales from traditional spirituality. But first we have to deal with yet another folk psychology grip on our intuition. Qualia.

By Probeman