

Lecture 6: Unity of Consciousness

At any point in time, our conscious experience seems unified. Think about the various aspects of your experience: the singing of the bird, the temperature of the room, the harsh artificial light, the smell of the cleaning product. They are all distinct but they are also bound together in one conscious experience. They are aspects of a “single encompassing state of consciousness”.

This unity raises three questions:

1. How should we understand the unity of consciousness?
2. Is it true?
3. If it is true, can we explain it?

How should we understand the Unity Thesis?

We need to distinguish the Unity Thesis we are interested in from some distinct claims. One kind of unity that philosophers and psychologists have been very interested in is objectual unity. Two states of consciousness are objectually unified when they are directed at the very same object. Thus, when I look at my orange water bottle I have a visual experience both of its shape (bottle-ish) and its color (orange).

Objectual unity is puzzling because the relevant properties may be represented in different parts of the visual system. This gives rise to the binding problem: how do these separate pieces of information come together so that I experience an orange bottle that I can then describe, report, etc?

The binding problem is an important problem in cognitive psychology and neurophysiology. But it's not what we are interested in right now. This is because the unity of our conscious experience goes further than just concerning individual objects: it spans different objects experienced at the same time, as well as different sense modalities.

Let's call this Phenomenal Unity. The idea is that whenever there are two states such that it's like to be in those states, there is also something it's like to be in the *conjoint* state. Thus if I am looking at my orange water bottle while listening to some Wagner, then there is something it's like to look at the water bottle while listening to Wagner.

We can put this as follows: phenomenal experience is closed under conjunction. The conjunction of any two phenomenal states gives rise to a joint phenomenal state that subsumes its conjuncts.

Phenomenal Unity Thesis: Necessarily, the set of all phenomenal states of a subject at a time is phenomenally unified.

Is the Phenomenal Unity Thesis true?

The Phenomenal Unity Thesis seems very plausible – perhaps even trivial. But it's subject to some controversy. In particular, it has come under pressure from some empirical work on Split Brain Syndrome.

The split-brain procedure involves severing the corpus callosum (which connects the two hemispheres of the brain). This is usually done as a treatment to severe epilepsy and it prevents epileptic seizures from spreading from one hemisphere to another. Surprisingly for such a radical intervention, the procedure had little impact on the patient's cognitive function in everyday life:

From the beginning one of the most striking observations was that the operation produced no noticeable change in the patients' temperament, personality or general

intelligence. In the first case the patient could not speak for 30 days after the operation, but then he recovered his speech. Most typical was the third case: on awaking from the surgery the patient quipped that he had a “splitting headache,” and in his still drowsy state he was able to repeat the tongue twister “Peter Piper picked a peck of pickled peppers.” (24)

On closer inspection, however, the patients revealed characteristic abnormalities: behavioral and representational.

Behavioral: when presented with different pictures in different halves of their visual field (cat on the left, dog on the right), and asked to report the contents, the patient will report only seeing the dog. But when asked to write down what they see with their left hand, she may slowly write “cat”.

This gives rise to the following argument:

1. Split brain patients’ representations are not behaviorally unified: they are available for high-level consumption but not to the same consuming systems.
2. Phenomenal unity entails behavioral unity: two experiences cannot be phenomenally unified without being behaviorally unified.
3. So split brain patients have simultaneous but phenomenally disunified experiences.

What is it like to be a split brain patient? There are different hypotheses that people have been suggesting. According to one, split brain patients have parallel streams of consciousness. According to another, split brain patients have one partially unified stream of consciousness.

Both proposals sound initially promising but it’s very difficult to pin down how either of them actually would work. The first one suffers from empirical inadequacy. First there is some integration, even in split brain patients. Second, there is no conflict.

The second one looks more promising but is very difficult to pin down. The challenge here is not merely that it seems difficult to imagine what such a phenomenal state would be like but rather that it seems inconceivable that such a phenomenal state could exist.

Access Unity

Do we need to appeal to phenomenal disunity in order to explain split brain patient’s behavior? Perhaps no, if we take care to distinguish the phenomenal unity thesis from another alternative, the access unity thesis.

Recall, access-consciousness is a matter of availability for higher-level cognitive functions. So here’s a thesis we might put forward:

Access Unity Thesis: Necessarily, any set of access-conscious states of a subject at a time is access-unified.

Access-unified here means jointly accessible.

Is Access Unity Thesis true? No, there are good reasons for thinking it’s false. A subject can be access-conscious of P and access-conscious of Q without being access-conscious of P&Q. For this to happen all we need is an access bottleneck: a pathway of information access through which only a limited amount of information can pass at one time.

A central example here is Sperling’s experiment.

Let's return to the split brain patient. We now see that access-consciousness is not unified. And you might think that this is sufficient to explain the behavioral disunity in the split brain patient. The patient has access to both the representational content of the cat and the dog. What they lack access to is the joint content: cat & dog.

What about their phenomenal consciousness? Tim Bayne explains the split brain patients' behavioral by appealing to a switch model.

The Phenomenal Unity Thesis has important implications for debates about the nature of consciousness. In particular, it has implications for the plausibility of certain theories of consciousness that closely align access-consciousness and phenomenal consciousness.

Readings

Gazzaniga: 'The Split Brain in Man'

Nagel: 'Brain Bisection and the Unity of Consciousness'

Chalmers and Bayne: 'What is the Unity of Consciousness?'

Bayne: 'The Unity of Consciousness and the Split-Brain Syndrome'