

Time and consciousness

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The topic of this poster is a proposal of how to include time into our understanding of consciousness and its possible physical underpinnings.

Problem 1:

How to describe the physical component in qualia?

Terminology:

Qualia are phenomenal properties of conscious experiences. They are a “what-it-is-like” to have a given conscious experience.

Assumption 1:

There is an objective and irreversible passage of time. This implies that each occurring physical event in our Universe has a property of “uniqueness”, i.e. it happens only once.

Assumption 2:

Each human conscious experience has a neural correlate. Let's call this neural event (or set of events) a C-event.

Identity statement:

The phenomenal property of conscious experience (qualia) is the property of uniqueness of C-events.

In other words:

Qualia are occurrences of C-events that take place in an environment where there is an objective and irreversible passage of time.

This implies that phenomenal aspect of conscious experience is not exclusively ascribed to some pattern of brain activity but it is also necessitated by the passage of time.

Metaphorically: qualia manifest the “unique” existence of our universe.

Inaccessibility of “what it is like to be a bat”

1. Let us assume, according to Nagel, that a bat has a certain kind of conscious experience. And this experience has phenomenal properties.
2. Let us assume that there are C-events in bat’s brain.
3. C-events have property of uniqueness.
4. “Uniqueness” of C-events in bat’s brain is the phenomenal property of its conscious experience (qualia).
5. Thus we cannot learn nor describe *what it is like to be a bat* because bat’s conscious experiences are singular and they are inseparably bound with the place and the time of the occurrence of the C-events in its brain. **But this does not imply they are non-physical.**

Knowledge Argument – What Mary has learned?

1. Mary knows everything about C-events correlated with color perception but she lives in a room painted in black and white.
2. Mary leaves her room and looks at the ripe tomato. She has a conscious experience of that tomato. This experience entails qualia associated with tomato color, shape, etc. According to my terminology these qualia are unique C-events in her brain.
3. Mary learns something new. What is it what she learns of? And is she able to convey it?

Just like in the interpretation of the “what it is like to be a bat” thought experiment, Mary cannot describe “what it is like to see a ripe tomato” in terms of her knowledge of C-events. But in a given unique moment when she experiences qualia of that object, she can refer to it using indexicals such as “now I see this tomato” or “now I have these C-events correlated with seeing this ripe tomato”.

So the content of her qualia-related knowledge can be referred to only with indexicals. Concepts we use to describe brain activity cannot capture the passage of time - they are “timeless” so to speak. Yet when we try to refer to qualia, their “uniqueness” is a key aspect of them. Thus, to be able to refer to phenomenal aspect of experience we can only use indexicals.

Problem 2:

How to distinguish C-events from non other neural events?

There are several properties of consciousness: first-person and third-person data, qualitative character, phenomenal structure, subjectivity, self-perspectival organization, unity, intentionality and transparency, dynamic flow (Source: *The Stanford Encyclopedia of Philosophy*)

Richard L. Gregory (1996) pointed at another one, closely related to the passage of time:

Qualia are *flagging* the present.

Thus we can characterize state of being conscious also as a subjective present. There is no “feeling of now” when we are not conscious.

Perhaps qualia have evolved to let the organism distinguish between the present moment and the past?

If this is true, we have to put also emphasis on studying brain processes that explain how brain is making distinctions between the present and the past.

Objections:

1. What if there is no objective arrow of time?

Still, we can define “uniqueness” on a basis of weaker assumptions. We know that there is a “unique” Universe we live in and time passes. So we can retain uniqueness, but define it as property of being a part of the unique universe in some given time point.

2. What about the “inner feel” of qualia?

Think of the “inner feel” of qualia as the manifestation of the “unique” existence of the universe through C-events.

3. Panpsychism?

I do not claim that “uniqueness” of any event is sufficient for qualia. My proposal is that only uniqueness of C-events is phenomenal aspect of conscious experience.

Conclusions:

- 1. Qualia are inconceivable as physical properties without taking into account the passage of time. I tried to conceptualize passage of time by the property of “uniqueness” of physical events.**
- 2. It is impossible to capture phenomenal aspect of conscious experience by physical descriptions of brain activity, since these descriptions are “timeless” so to speak – they cannot convey the passage of time. This is however crucial, as I tried to demonstrate, for the experience of qualia.**
- 3. If the function of qualia is “to flag” the present moment, that could help us in our pursuit of NCC. We have to concentrate also on studying how the subjective present is constructed by our brains.**