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What Are Some Concise Ways To Convince People That Consciousness Is Not An Emergent Property?

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Answer by [Marc Ettlinger](#), PhD linguistics, research neuroscientist at the Dept of Veterans Affairs, on [Quora](#),

If you frame the question right, it's pretty easy because claims of emergent consciousness are simply philosophical assumptions dressed up as science. You can poke holes in this edifice in three crucial ways, teasing apart the idea that **consciousness** (1) is an **emergent** (2) property of **the brain** (3).

Emergent

First, "emergent property" is an oft-misused term. With respect to consciousness, it is one of those hand-wavy terms people like to throw around without any substance behind it. Used appropriately, it can refer to an incredibly useful scientific hypothesis.

A basic definition is something like *complex properties that result from the interaction of simple behaviors*. When people talk about emergent consciousness, they show nothing of this sort and therefore don't answer the *how* of consciousness.

Some crucial questions that "emergence" doesn't answer, which actual scientific emergent explanations tackle include:

How does consciousness arise from chemical interactions leading to electric impulses?

Why is there consciousness instead of something else?

How does physiology constrain and define this so-called emergent property?

The crucial thing missing here is mechanism. When we talk about real emergent properties, like those of a network, for example, we can show how a specific type of network (e.g., a [Small-world network](#)) will emerge in lots of different situations, (e.g., the brain, social networks etc.) because of simple properties that connections between things have: some sort of relationship between viability and proximity. From this, you get lots of local connections and a few non-local ones in certain proportions. Crucially, this makes sense in a mechanistic way where you can understand how the simple properties specifically gives rise to the larger organization and basically only this organization and you can model it — see it happen before your eyes.



The brain as small-world network

The same cannot be said of consciousness and synapses. Don't get me wrong: I'm all for emergence as explanatory when worked out in sufficient detail (e.g., [An Exemplar-Based Computational Model of Chain Shifts](#)), but that has yet to be done with consciousness and it's not even close, because it is currently at square zero. Has anyone shown a model that exhibits properties of self awareness and qualitative experience from chemical properties? Again, not even close.

Terrence Deacon articulates this well in [Incomplete Nature: How Mind Emerged from Matter](#): Emergentism is simply playing a shell game, taking the mysticism it purports to explain, and calling it "emergence."

The Brain

Another assumption that's unwarranted in presuming that *consciousness is an emergent property of the brain* is that there is no evidence that consciousness is completely encapsulated in the brain. The consciousness we observe is, at

the least, a property of the interaction of the brain with the world through the rest of the central nervous system outside the brain, plus the peripheral nervous system.

We have yet to show that consciousness can emerge from a [brain in a vat](#). If this were to *ever* happen, then the input to your vatbrain would certainly have to mimic precisely the things (environment, CNS, PNS) that you're excluding from consciousness when saying it emerges from **the brain**. I don't think anyone has ever argued that the brain in the vat would develop consciousness absent necessary input from some very specific system.

So, by saying *in the brain*, you're limiting your explanation unnecessarily given a lack of evidence. Of course, you can simply say, *consciousness emerges*, but I can't imagine a more vacuous statement, given lack of scientific meaning of *emerge* discussed above.

It's more like saying *consciousness exists*, which I hope we can at least all agree on (though I know some don't).

The Hard Problem of Consciousness

The final big issue concerns what aspect of consciousness you're actually trying to address. Generally, the evidence from brain imaging is about the "easy" problems of consciousness (cf., [Hard problem of consciousness](#)), such as attention, self-awareness, [proprioception](#) and so on. (Note, these are still not *easy* questions, but certainly tractable in the sense of answerable via the current empirical methods we have at our disposal.) ***That sidesteps the actual key philosophical issue that is at the heart of what people have been arguing about for at least 400 (Cogito ergo sum) and possibly over 2000 years (Allegory of the Cave), the question of Qualia.***

In other words, why aren't we ***philosophical zombies?***

How do you explain the subjective experience of *redness*, let's say? Saying simply that it's the correlate of the neurophysiological response to certain rods and cones sensitive to certain light waves does not answer the question of why there is a gestalt qualitative experience of ***red***.

I like [Schrödinger](#)'s framing of this precise subject:

“ The sensation of color cannot be accounted for by the physicist's objective picture of light-waves. Could the physiologist account for it, if he had fuller knowledge than he has of the processes in the retina and the nervous processes set up by them in the optical nerve bundles and in the brain? I do not think so.

The response may be that this is all simply an illusion (<http://www.imdb.com/title/tt0234...>), of course, but that, again, denies or sidesteps the deeper question and doesn't answer it.

At a practical level, we can ask whether **bluebrain**, when it is up an running, will have consciousness on its own? The answer may be *yes*, and there will be lots to think about, but it's certainly not a foregone conclusion.

So, emergentism, in this context, is simply camouflaging the supernatural wolf in the sheep's clothing of pretend science and pretend explanation. It is merely renaming the philosophical imperative (and perhaps belief) of [monism](#) and [materialism](#) as something that sounds explanatory.

I don't have an answer myself, but neither do they. So, you can let these folks believe they have consciousness figured out, but the truly beautiful mystery of subjective experience is still far from understood.

[This question](#) originally appeared on [Quora](#): [What are some concise ways to convince people that consciousness is not an emergent property?](#). More questions:

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