

Are some creatures more conscious than others?

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If you spend enough time in the world of consciousness research, you'll occasionally hear remarks like the following:

1. A human is more conscious than a fish.
2. If snails are conscious, they're only a little bit conscious.
3. Could psychedelic states be more conscious than sober states?
4. Some AIs may already be [slightly conscious](#).

Set aside, for the moment, the question of whether these claims are true. Do these claims even make sense?

I started thinking about this question because I noticed a puzzling disparity. Most scientists I knew took it for granted that consciousness comes in degrees. One psychologist has notoriously suggested that "[babies are actually more conscious than we are as adults](#)." Yet others—especially certain philosophers—have been skeptical, with some even proclaiming that it "[barely makes sense](#)" to ask whether a human is more conscious than an octopus. I found myself somewhere in the middle. The idea that some creatures are more conscious than others resonated with me. But I wondered whether there was a hidden confusion behind the question.

The word 'conscious' can mean many different things. Sometimes it's used to express the fact that a creature is awake, or aware of certain facts or objects, or responsive to its environment, or has a concept of self. But the sense of 'conscious' I'm interested in is what philosophers and scientists call *phenomenal consciousness*. To be phenomenally conscious is to have a subjective, first-person point of view. So long as there's something it feels like to *be* a creature, it's conscious. And in this sense of 'conscious', it may

seem that every entity is either conscious or not, with no gray areas. What exactly would it mean for consciousness to come in degrees?

To think clearly about the question, we need to start by untangling two ideas that are often mixed together. The first is whether consciousness comes in degrees (Are some creatures more conscious than others?). The second is whether it can be a matter of degree whether an entity is conscious (Are there creatures for which there's no fact of the matter as to whether or not they're conscious?). Imagine, for a moment, that consciousness is an inner light: it's on in humans, dogs, and maybe snails, and off in rocks, tables, and calculators. But even if the light is always either on or off (so it's never a matter of degree whether it's on), perhaps the light still sometimes shines more brightly (so it comes in degrees).

The analogy with the light can help dispel another confusion. I've often heard the following argument: instead of thinking of conscious experiences as simply varying along a single scale, we ought to recognize the numerous ways in which conscious experiences vary. I initially found this reasoning compelling, but I later realized that it appeals to a false dichotomy. Imagine, for example, that the inner light varies in both intensity and aperture. Then it's multidimensional (it varies in multiple respects) but still degreed (there can be more or less illumination). Even if there are many different ways for the light to shine, some of those ways might be brighter than others.

But what exactly would it mean for consciousness to come in degrees? I eventually came around to a simple but powerful way of thinking about the question: To be more conscious is to have more of whatever consciousness *is*. In other words, any theory of consciousness must fill in the following blank: To be conscious is to have _____. And once that blank is filled in, we can ask: can some creatures have more of *that* than others?

Nobody today knows how exactly to fill in that blank. There's no consensus, amongst contemporary researchers, on which theory of

consciousness is correct. And since we don't know what exactly consciousness is yet, we don't know yet whether some creatures are more conscious than others. But in a [recent academic article](#), I explain how we can use the tools of contemporary analytic philosophy to make sense of degrees of consciousness. And when we do so, it turns out that most theories of consciousness entail that some creatures can be more conscious than others.

To illustrate, let's walk through some simple examples. Suppose that to be conscious is to have a soul. Since souls don't come in degrees and since every creature has exactly one soul, it seems to follow all conscious creatures are equally conscious. By contrast, imagine that consciousness is instead more like water—there's a puddle in you, a puddle in me, and maybe a smaller puddle in a fish and a larger puddle in an octopus. Then it's natural to say that humans are more conscious than fish (and less conscious than octopuses). Maybe neither of those pictures is correct. But they show how we can reason through the question, once we have a picture of consciousness on the table.

If you ask me whether a human is more conscious than an octopus, then your guess is still as good as mine. But I've come to think that the question is sensible and worth exploring. And if I had to bet one way or the other, I'd bet on degrees of consciousness.

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