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Week 12

Appearance and Reality

The fact that you can't prove that some statement is true doesn't mean that you don't know that it is true. You probably can't prove that 1+1=2, but you do know that 1+1=2. You probably can't prove that the Earth orbits the Sun either, but that's also something you know.

Consider the statement that your brain was not recently removed from your skull and placed in a vat. Can you prove that this statement is true? Probably not. But it does not automatically follow from this that you don't know that your brain wasn't recently envatted (any more than your inability to prove that 1+1=2 implies that you don't know that 1+1=2).

If you want to make me doubt that the Earth orbits the Sun, you need to do more than just point out that I don't know how to prove that the Earth orbits the Sun. You need to give me some positive reason to believe that the Earth does not orbit the Sun, or at least some positive reason to suspend judgement on whether the Earth orbits the Sun. For example, if you can convince me that the heliocentric theory is actually a giant hoax carried out by a secret cult of Copernicans, then I might doubt that the Earth orbits the Sun. But just pointing out that it is possible to conceive of a situation in which the Earth does not orbit the Sun won't cut it. If you want to plant a seed of doubt in my mind, you have to do better than that.

Many of the so-called "skeptical hypotheses" that one encounters in philosophy have absolutely no chance of planting seeds of doubt in any mind (or any sane mind anyway). The hypothesis that your brain was recently removed from your skull and placed in a vat where it is kept alive and stimulated by a gigantic computer is a case in point. This "hypothesis" is nothing more than a gruesome fairy-tale. It would be different if I witnessed one of my friends having his brain removed by a team of surgeons and placed in a vat etc. That would give me some reason to take seriously the possibility that something similar might happen---or might already have happened!---to me. But as things actually stand, I have no reason to take the recent-envatment hypothesis seriously. As things actually stand, I would have to be crazy to give the story any credence at all.

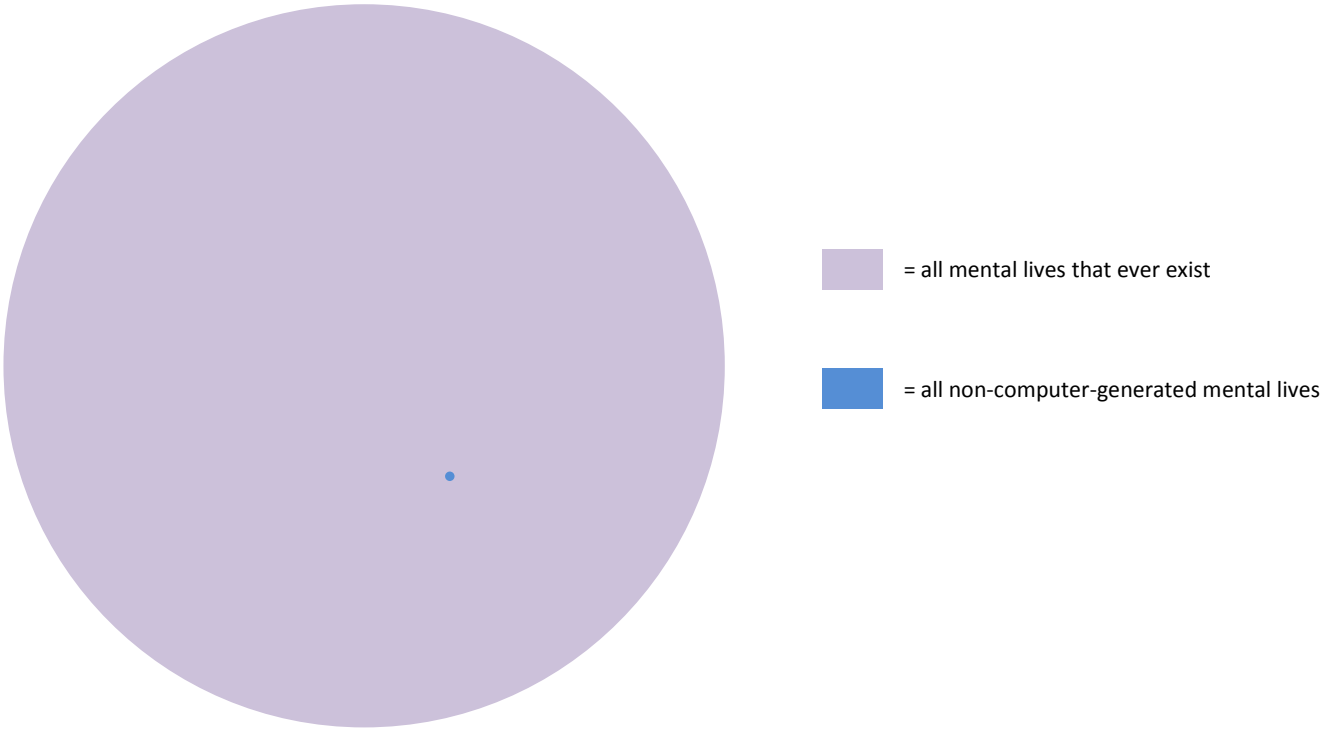
But not all *prima facie* skeptical hypotheses are like this.

Consider the fact that we will soon have computers more powerful than the human brain (IBM is working on such a computer right now, due for completion in the year 2020).

Consider further the fact that, at the present rate of advances in computer technology, there will, within the next several hundred years, be computers so powerful that one of them can, within a fraction of a second, replicate many billions of years of human brain-activity.

Consider, finally, that if we assume that humanity does someday build such powerful computers, we have no good reason to think that that day has not already arrived---no reason, that is, to suppose that our own mental lives are not among the billions upon billions of mental lives generated by powerful computers.

In fact, as we saw last week in our discussion of Nick Bostrom's Simulation Argument, if we assume that humans do at some point in time develop the technology to replicate huge numbers of mental lives, we must suppose that the total number of mental lives that ever exist includes mostly computer-generated mental lives:



This is because the supercomputers, once they are up and running, generate far more mental lives than ever get generated by living human brains. When you look at it this way, what are the chances that your own mental life isn't computer-generated? Evidently quite low.

So, even though the hypothesis that you were recently abducted by deranged neurosurgeons who removed your brain to put it in a vat etc., etc., is not a hypothesis that we have any reason to take seriously, the same cannot be said of the hypothesis that you are living in a simulation running on a powerful computer. Following Bostrom, we can call the latter hypothesis the Simulation Hypothesis.

But now: is the Simulation Hypothesis really a skeptical hypothesis? That is: would the truth of the Simulation Hypothesis imply the falsity of most of your ordinary beliefs? For example, would it imply that it is false that you have a body, that you take classes at NUS, that you move around in a physical environment populated by trees, buildings, and other people?

Not according to David Chalmers. According to Chalmers, the hypothesis that we are living in a computer simulation is not a skeptical hypothesis, but a metaphysical hypothesis. It is a claim about the fundamental underlying nature of reality.

To see what Chalmers is getting at, consider the historical shifts that have actually taken place in our understanding of the fundamental make-up of the physical world. There was a time when the leading theory was that the physical universe fundamentally consisted of Earth, Air, Fire, and Water, in various combinations. More recently, the leading theory has been that the physical universe fundamentally consists of various sub-atomic particles (quarks, leptons, bosons, etc.).

This shift in views about the fundamental underlying nature of physical reality did not precipitate a wave of external-world skepticism. Nor should it have. Suppose that we unearth a ring while digging in the garden. I think it is made of gold; you think it is brass. You can bring me over to your view---say, by pointing out a spot of corrosion---without giving me any reason to doubt that the ring exists. In the same way, the considerations that lead us from the Four Elements view to the elementary particle view give us no reason to doubt the existence of the things whose fundamental underlying natures we are talking about.

We can also look to philosophical debates in metaphysics for illustrations of Chalmers' point. All serious metaphysicians agree that there exist tables and chairs and other ordinary physical objects. Where metaphyscians disagree is about the fundamental nature of ordinary physical objects. According to some philosophers (such as Descartes), what it is for a table to exist is for spacetime to be filled with matter in a certain way (a table-shaped way). According to other philosophers (such as Mill), what it is for a table to exist is for conscious experiences to occur in a certain way (a way that presents a realistic subjective appearance of a table). And other philosophers have other views about the fundamental underlying nature of tables. The point is that what these philosophers disagree about is not whether there are such things as tables, but only about what the existence of a table amounts to.

According to Chalmers, the hypothesis that we live in a computer simulation (or in the Matrix, or that we have always existed as envatted brains) is like the hypothesis that the universe fundamentally consists of the Four Elements, or the hypothesis that tables are patterns of conscious experiences. It's just saying that physical things are fundamentally made of "bits and bytes"---computer stuff---rather than Earth, Air, Fire, and Water (or quarks, leptons, bosons; or conscious experiences; or whatever). The Simulation Hypothesis has profound implications for the nature of the things we perceive, but it does not cast any doubt at all on the existence of those things.

All the same, it can be hard to escape the feeling that the Simulation Hypothesis is a skeptical hypothesis. Certainly Nozick (of the infamous Experience Machine) thinks of it as a skeptical hypothesis. That's why Nozick thought that the life of someone living in an Experience Machine would be somehow fake or delusive.

Suppose that we are the ones who have built and programmed a supercomputer to replicate vast numbers of human mental lives (complete with genuine thoughts, emotions, sensations, etc.). As we sit there watching our computer run the mind-replication program, do we really want to say that the minds in the computer encounter actual trees, buildings, etc.?

Chalmers answers as follows. The people in the computer simulation do not perceive what we call "trees," "buildings," etc. But they do perceive what they (the people in the simulation) call "trees," "buildings," etc. Likewise, if we are living in a computer simulation, we perceive what we call "trees," although not what our Simulators call "trees." It's just that if we're living in a computer simulation, then what we call "trees" are (unbeknownst to us) features of a powerful computer (the computer in which we live).

So, if Chalmers is right, what may we conclude about the so-called problem of external world skepticism?

Some *prima facie* skeptical hypotheses really are skeptical hypothesis. The hypothesis that you are a recently-envatted brain is an example. However, we have no reason to take these hypotheses seriously.

On the other hand, we do have some reason to take seriously the hypothesis that we are part of a gigantic computer simulation. But although this hypothesis has the air of a skeptical hypothesis, further reflection reveals that it is not, in fact, skeptical, but rather metaphysical.

So, at least, argues Chalmers.