Singularity As Pseudoscience

Singularitarianism, the belief that a technological "singularity" event that will radically transform our existence is near, is pseudoscience. Or a cult for middle-aged rich tech people out of Silicon Valley who really don't want to die (think of it as the Rapture for nerds). And yet, it is a fairly popular concept among skeptics, and it is therefore worth taking a closer look at it.

The idea of a coming Singularity has a long history—depending exactly on how you define the concept—but it most prominently traces back to the writings of science fiction author Vernor Vinge, and in recent times has been popularized by futurist Ray Kurzweil (the same guy who made his fame out of his involvement with the development of optical character recognition and speech recognition technologies, and who currently produces some of the most expensive urine on the planet due to the 150 tablets of vitamins he ingests every day to slow down his aging).

The basic concept, as far as one can make it out, is that technological improvement—and particularly computational power—keeps increasing pace and will soon (around 2045, according to Kurzweil's estimates) result in a major discontinuity in human history: the appearance of smarter-than-human computers, which in turn will change the game of history so dramatically that it will be impossible to predict what will happen next.

Which, of course, hasn't stopped Singularitarians from predicting what will happen next. Some take an apocalyptic view of things, à la *Battlestar Galactica*: the Cylons will take over and extinguish the human race (if you don't know what a Cylon is you should stop reading this, go watch the series, and come back later).

There are so many things wrong with the idea of a Singularity that it is hard to disagree with Steven Pinker's general assessment: "There is not the slightest reason to believe in a coming singularity.

The fact that you can visualize a future in your imagination is not evidence that it is likely or even possible. . . . Sheer processing power is not a pixie dust that magically solves all your problems."

Still, let me try to briefly sketch the major issues. To begin with, pretty much the only "solid" reasoning behind Kurzweil's projection is a highly dubious generalization of Moore's law—describing advances in computing power—to the whole history of life on Earth. Kurzweil's generalization (which includes a series of "paradigm shifts," from which it is obvious that Kurzweil is unaware of what a paradigm is) arbitrarily mixes and matches events to fit on a nice exponential curve similar to that graphing Moore's law (of which the latter would then be a subset). Of course, Moore's law is not actually a "law" but simply an interesting interpolation describing a specific recent technological trend, and in fact Moore himself thinks that Kurzweil is out of whack in his interpretation of Moore's findings.

Second, to equate computing power with "intelligence" (boy, is *that* one slippery concept!) and then in turn intelligence with human-type consciousness is to commit multiple category mistakes. If there is one thing we have learned from the now multi-decade old "strong" AI program it is that it has been an abysmal failure. Yes, we got Deep Blue and Watson, but that has little to do with actual human intelligence, let alone consciousness. (Please note that I am no mystical dualist, I am simply stating my understanding of the current state of knowledge in cognitive and computer science.)

Third, things become downright bizarre when we get to Kurzweil's optimistic predictions concerning the post-Singularity (which, as I mentioned earlier, he ought not to be able to make, given the very definition of a Singularity, but at this point that's a mere caveat). He is hoping for immortality via something termed "mind uploading," the transfer of his consciousness into a computer.

Now, the first objection that comes to mind has been hinted at above: Why would the super-human intelligent computers bother to give *us* immortality while they could just as easily wipe humankind out and make room for more super-intelligent computers? (Again, see what happens with the Cylons. . . .) Moreover, the whole idea of being able to upload one's consciousness assumes a strong—and not at all validated—version of the computational theory of mind. But that theory is, ironically, a flagrant example of dualism, because it separates what Descartes would have called the *res extensa* (mere matter) from the *res cogitans* (thinking stuff), the latter defined entirely in terms of logical symbols. There is no reason to believe that that's the way consciousness arises, and there are good reasons to think that it is instead a biological process, tightly linked to other biological processes and substrates typical of the kind of animal we are. (To formally abstract from those processes would be like saying that we can upload "breath" while doing away with lungs, to use an imperfect analogy.)

Moreover, if the Singularitarians were to actually get what they wished, they would likely find themselves in a self-made hell. Human psychology evolved alongside a body capable of sensations, emotions, and so on—not just pure thought. An entirely formal, symbolic consciousness (whatever that might mean) would be nothing like a human being and would experience the world much differently than we do. Sounds like a recipe for disaster to me.

Not to mention that, from an ethical perspective, it seems obscene to have a bunch of rich white men salivating after their own immortality in a world where literally billions are either dirt poor or starving to death. ■